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**A GUIDE TO SOME ASPECTS
OF ENGLISH SOCIAL
HISTORY, 1750-1850**

**BY
JUDITH BLOW WILLIAMS, M.A.**



**NEW YORK
1916**

A GUIDE TO SOME ASPECTS OF ENGLISH SOCIAL HISTORY, 1750-1850

**BY
JUDITH BLOW WILLIAMS, M.A.**

**SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY
IN THE FACULTY OF POLITICAL
SCIENCE OF COLUMBIA UNIVERSITY**



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PREFACE

STRANGELY enough, what must be recognized as one of the most important periods in the history of mankind, is one which, as a whole, has received comparatively little attention from historians. For mediæval social history there are numerous histories and text-books which survey the whole field, as well as Gross' guide and Hubert Hall's bibliography. Special studies abound, and the source material has been made available to a large degree through the publications of antiquarian and historical societies.

In the field of modern English social history, much less has been accomplished. Cunningham's *Growth of English Industry and Commerce* has been supplemented by numerous valuable monographs by economists, but no adequate survey exists of the sources of a period when improved printing-presses were supplying a reading-public, newly awakened to an interest in economic and social questions, with an output almost staggering in amount. England of the later seventeenth and early eighteenth centuries was the setting for the origin of most of what characterizes modern industrial society. The intricate nature of the interrelating social forces is reflected in the literature of the period. To provide some guide to the maze would seem essential before the entire field can be adequately treated in an intensive, scholarly way. At the suggestion of Professor Shotwell, and because no such guide seemed to be forthcoming from the hands of scholars, the author consented to attempt at least in slight part to fill the need.

But the task has proven heavier even than was anticipated. Because of the amount of labor already performed, and the peculiar nature of the work, it has been decided to seek for it the sanction of the Faculty of Political Science of Columbia University. With this in view, the following pages have been printed, not with the idea that they alone are offered for the degree, but simply as a sample of the kind of work being done, the amount and character of which is at present to be judged from the manuscript and notes. The completed volume, it is expected, will appear in Professor Shotwell's series, "Records of Civilization."

PREFACE

In order to avoid a disjointed compendium of titles on all sorts of subjects, two dominant ideas have been adhered to—first, that the Industrial Revolution with its intricate interacting effects on all aspects of life was the keynote of the period; and, second, that this work shall be essentially for the use of students of history, not for the specialist in some of the more remote fields touched upon. Thus some works on chemistry are included because they were constantly referred to by the textile worker, for dye-stuffs, or by the farmer, for scientific agriculture. Similarly, although many works in the province of Economics are included, they appear only because they are essential to an understanding of the history of the period. A book of slight theoretical value, if it made a popular appeal that carried it through many editions, was itself an historical fact of importance, for it either reflected or influenced thought and action. Such works are often of as much interest to the historian as those which still are justified in the field of economic theory. Others of little value at any period in their career contain incidental references of genuine importance. For instance a pamphlet on agriculture with a ludicrous theory of rent might still furnish actual data of prices not to be found elsewhere.

A word should be said as to the method of selection of books to be included. From the bibliographies prefixed to many sections one might judge that from them had been culled the appended lists. This has not been the case. The collection of titles has been built up from reading the literature of the subject, since the accidental character of many library collections might prevent these bibliographies from being truly representative. Only as a final means of checking important omissions was the already prepared bibliography consulted. Thus it is hoped that a just sense of the relative importance of the works has been developed, since from the historian's point-of-view, the estimation of contemporaries gives a valuable indication of historical significance. The knowledge thus gained, however, has been used only as a means of supplementing the author's own judgment of the books.

As concerns the comments on books several points should be noted. They are the result of actual reading of the works to which they are appended. They have been cut down to as brief form as possible, while still aiming to retain whatever is essential to guide

PREFACE

the searcher to the nature and value of the contents. If it is thought that the title is self-explanatory, further comment has been omitted. The same was done in the cases of supplementary works by an author whose point-of-view had previously been described and remained unaltered.

Similarly the introductory paragraphs are the result of research among the works quoted, and are planned to give, in as condensed form as possible, such information on the topic as it may be useful to have at hand. It is hoped that from them, and from the titles and comments, a bird's-eye view may be obtained of the period, that will, of itself, be of value, aside from the bibliographical aspects of the work.

A severe handicap has been met in the inability to study in England because of the war. The wealth of material to be had in American libraries has, however, been a surprising discovery, and should be an encouragement to Americans to undertake research in modern English social history. Moreover it should be remembered that the usefulness of this guide will depend to a large degree upon the availability of the material which it covers. From this point of view perhaps the handicap which the war has imposed may not have resulted in so serious a loss as would be the case if the work had been intended to cover the obscurer aspects of so vast a field.

Expression of gratitude must be made to Professor Shotwell, my major professor, and to Professor Seligman for his kindness in permitting the use of his library of rare works on economic history, and for his careful review of many of these pages.

NOTE

Except for bibliographies, periodical and official publications, which have been placed at the head of the section, chronological order has been maintained throughout every topic. Thus it is often best to consult the close of the section first, for an introduction to the subject, since the most recent authorities are to be found there.

London is to be considered the place of publication if no location is mentioned.

Detailed references to articles in periodical or official publications are usually omitted, since the published indexes furnish a guide to the more accessible, which alone could be printed here.

PART I
THE CONDITION OF THE COUNTRY

§ I. POPULATION

Interest in the number of inhabitants of England early centered in its relation to the question of the political and military strength of the nation. For a long time such estimates as those of Gregory King and Charles Davenant and Sir William Petty in the seventeenth century remained standard. A new interest, although largely academic, was aroused by the controversy between Hume and Wallace as to the relative increase or decrease of population since ancient times, but the dispute soon shifted to a field of more widespread importance represented by Price's contention that population had diminished since the Revolution and that England was in danger from France. Thus far the estimates had been of semi-statistical character, based on two sources, neither of which could approach accurate results.

The first of these, returns from the house tax, gave sufficiently correctly the number of houses, but did not so distinguish the size that any agreement could be reached as to the correct average number of inhabitants to be assigned to each. The other source was nearly equally unsatisfactory. Since 1603 uniform records had been kept in the parish registers of births, deaths and marriages, many going back to 1570 or earlier. From them rough estimates could be made, but they were vitiated by the fact that the names of Dissenters were not included. A cognate source was the bills of mortality published weekly and annually from 1592, and without break from 1603, and originally designed to give warning of the plague. A criticism of their value, indicating their unreliability, may be found in the Report of the Select Committee on the General State of the Parish Registers . . . 1833. (See *Local Records*.)

A little earlier than the first English census, the population controversy became more acute. In an effort to refute the tenets

of Godwin and Condorcet concerning the indefinite perfectibility of man, the Rev. T. R. Malthus published his noted "Essay on the Principle of Population," in which he maintained that since misery and vice were the only checks which prevented population from outstripping the means of its subsistence, wretchedness could never be wholly eradicated. A really more accurate statement of a somewhat similar theory had already been made by Sir James Steuart in his "Political Economy," but the less guarded formulation of Malthus made a stronger impression. The principle was generally adopted among economists, and still is discussed in any comprehensive treatise on political economy. It did not remain an abstract question, but modified markedly the policies advocated by the economists, notably those in regard to the poor laws.

The demand for accurate information was voiced prominently by Arthur Young, who recognized the value of the census, already an established institution in Sweden. Parliament became convinced of the need, and the first English census was taken in 1801. Its success was such that every ten years thereafter an act was passed for an increasingly elaborate enumeration of the population. Particularly valuable are the retrospective survey by John Rickman prefixed to the census of 1841, published in volume 22 of the Parliamentary Papers for 1843, which gives estimates of the population between 1570 and 1750, based on the parish registers, and the introduction to the census of 1851, (1853, v. 88, part I,) which interprets the social history of population in England from the seventeenth century.

Further government aid in securing knowledge of population and vital statistics resulted from the establishment of the office of Registrar General. His first annual report, giving data of births, deaths and marriages was published in 1839. Since then weekly and quarterly publications have also been issued. These reports do away with the difficulty attending the bills of mortality, for, since the registration is civil, Dissenters and Catholics are included.

See also, *Economic Theories, General Conditions, Condition*

of the Working Classes, Poor Laws. For vital statistics, refer to *Health and Friendly Societies.*

OFFICIAL PUBLICATIONS

1. The Census. Taken at intervals of ten years from 1801, and usually published a year or more after it was taken.

2. First Annual Report of the Registrar General of Births, Deaths, and Marriages in England, 1839, 168 p. Tables of marriages, births, and deaths, with classifications according to locality, age, occupation, causes of death and the like. Published annually since 1839.

3. Tables of the Revenue, Population, Commerce, &c., 1820-1852. Published annually by the Statistical Department of the Board of Trade, under the direction of G. R. Porter, 1820-1844, then, of A. W. Fonblanque.

OTHER WORKS

4. Hume, David, *The Populousness of Ancient Nations.* No. 11 of "Essays, Moral, Political, and Literary," 1753.

5. Wallace, Robert, *A Dissertation on the Numbers of Mankind in Ancient and Modern Times: in which the superior Populousness of Antiquity is maintained.* . . . Edinburgh, 1753, iv., 331 p., 2d ed., 1809. Opposes Hume.

6. Bell, William, *A Dissertation on the Following Subject: What Causes principally contribute to render a nation populous? And what effect has the populousness of a nation on its trade?* Cambridge, 1756. Population tends to diminish in modern times. Encourage agriculture to increase population. Answered by William Temple, *A Vindication of Commerce and the Arts*, 1758, q. v.

7. Burrington, George, *An Answer to Dr. W. Brakenridge's Letter Concerning the Number of Inhabitants, within the London Bills of Mortality, wherein the Doctor's letter is inserted*

. . . his arguments proved inconclusive, and the number of inhabitants increasing. 1757.

8. A Collection of the Yearly Bills of Mortality, from 1657 to 1758, inclusive. Together with several other Bills of an earlier date . . . 1759, 15, 151 p. Includes several reprints, Captain John Graunt, Sir William Petty, Corbyn Morris, *et al.*, on the subject. Imperfect collection. Criticises accuracy.

9. Ferguson, Adam, An Essay on the History of Civil Society. Edinburgh, 1767, (7th ed., 1814,) includes a discussion of population with an idea of the influence of the standard of living on marriage. See also his *Principles of Morals and Political Science*, Edinburgh, 1792, 2 v.

10. Short, Thomas, A Comparative History of the Increase and Decrease of Mankind in England, and several countries abroad . . . 1767, viii., iv., 213. Based on bills of mortality. Annals of weather as affecting the death rate. Encourage marriage by checking luxury, stopping enclosures, etc. Lessen the death rate by better sanitation.

11. Steuart, Sir James, An Inquiry into the Principles of Political Economy; being an essay on the science of domestic policy in free nations. In which are particularly considered population, agriculture, trade, industry, money, coin, interest, circulation, banks, exchange, public credit and taxes. 1767, 2 v. 2d ed. Dublin, 1770, 3 v. Also in *Works*, 1806. The numbers of mankind have been proportionate to the food produced.

12. Young, Arthur, Proposals to the Legislature for Numbering the People. Containing some observations on the population of Great Britain, and a sketch of the advantages that would probably accrue from an exact knowledge of its present state. 1771, 45 p. Wants not only enumeration but classification by occupation.

13. Eden, William, Baron Auckland, A fifth letter to the Earl of Carlisle . . . on population, on certain revenue laws . . . 1780. A few general words on the subject.

14. Price, Richard, *An Essay on the Population of England from the Revolution to the present time.* 1780. 2d ed., 1780, vi., 88 p. Prominent work. Basing his estimate on the number of houses taxed, he believed population to be diminishing while that of England's enemies was increasing. First published as an appendix to Morgan's *Treatise on the Doctrine of Annuities*.

15. Howlett, John, *An Examination of Dr. Price's Essay on the Population of England and Wales; and the doctrine of an increased population in this kingdom, established by facts.* Maidstone, 1781, xii., 156, xv. p. Criticises the basis for Price's statement and the causes assigned by him. Attempts to prove an increase of population from parish registers and house tax returns. Declares that cities create a demand for agricultural produce which stimulates population sufficiently to counteract the effects of their unhealthfulness.

16. *The Uncertainty of the Present Population of this Kingdom, deduced from a candid review of the accounts lately given of it by Dr. Price . . . on the one hand, and Mr. Eden, Mr. Wales, and Mrs. Howlett, on the other.* 1781.

17. Wales, William, *Inquiry into the Present State of Population of England and Wales, and the proportion which the present number of inhabitants bears to the number at former periods.* 1781. Political arithmetic. Compares birth and death rates, encouragement of population desired.

18. Paley, William, *Principles of Moral and Political Philosophy.* 1785. Recognizes the limiting effects of the standard of living.

19. Percival, Thomas, *Observations on the State of Population in Manchester and other adjacent places.* 1775 to 1789. Manchester, 1789.

20. Chalmers, George, *An Estimate of the Strength of Great Britain during the present and four preceding reigns.* 1794. The discussion of population consists largely of a review of the controversy, with statistics used in an effort to resolve it.

21. Howlett, John, *An Inquiry into the Influence which Enclosures have had upon the Population of England*. 1786. 2d. ed., 1786.

22. Malthus, Thomas Robert, *An Essay on the Principle of Population as it affects the future improvement of society, with remarks on the speculations of Mr. Godwin, M. Condorcet and other writers*. 1798, xv., 396 p. Published anonymously. Numerous later editions, 1803, 1806, 1807, 1817, 1890. The center of the population controversy. Thesis: Population tends to increase beyond the means of subsistence unless prevented by vice, misery, and, in later editions, moral restraint.

23. Eden, Sir Frederick Morton, *An Estimate of the Number of Inhabitants in Great Britain and Ireland*. 1800, 93 p. Partly reprinted from his "The State of the Poor," partly based on new material, baptisms, burials and assessed houses.

24. Capper, Benjamin Pitts, *Statistical Account of the Population and Cultivation, Produce, and Consumption of England and Wales*. 1801. Pamphlet.

25. Malthus, T. R., *An Essay on the Principle of Population, or a view of the past and present Effects on Human Happiness*. New edition very much enlarged with the name of the author. 1803. Adds "prudential restraint" to vice and misery as checks upon population.

26. Whitelaw, James, *Essay on the Population of Dublin in 1798; being the result of an actual Survey taken in 1798 . . . To which is added the General Return of the District Committee in 1804 . . . Dublin, 1805*.

27. Ingram, Robert Acklom, *Disquisitions on Population, in which the Principles of the Essay on Population, by T. R. Malthus, are examined and refuted*. 1808.

28. Gray, Simon, *The Happiness of States: or, An Inquiry Concerning Population, the Modes of Subsisting and Employing It, and the Effects of All on Human Happiness; in which is*

developed the new or productive system of statistics. 1815, vi., 598 p. Opponent of Malthus. "Population regulates subsistence, not subsistence population," p. 445. Includes general economic theory, as distribution, circulation, etc., gives especial attention to the question of waste.

29. Grahame, James, *An Inquiry into the Principle of Population: including an exposition of the causes and advantages of a tendency to exuberance of numbers in society, a defence of poor laws, and a critical and historical view of the doctrines and projects of the most celebrated legislators and writers, relative to population, poor, and charitable establishments.* Edinburgh, 1816, viii., 332 p. Opposes Malthus.

30. Weyland, John, Jr., *The Principles of Population and Production as they are affected by the Progress of Society; with a view to moral and political consequences.* 1816, xl., 493 p. "Population has a *natural* tendency to keep *within the powers* of the soil to afford it subsistence," p. 21. Includes such topics as charity, education, friendly societies. . . .

31. Ensor, George, *An Inquiry Concerning the Population of Nations: containing a refutation of Mr. Malthus's Essay on Population.* 1818, viii., 502 p. People are riches to a country. Causes of ills, not overpopulation, but wrong distribution of wealth, national debt, subsidies, pensions and sinecures, etc.

32. Purves, George, *Gray versus Malthus. The Principles of Population and Production Investigated* 1818, xi., 496, 21 p. Favors Gray (No. 28).

33. A clear, fair, and candid investigation of the population, commerce, and agriculture of this kingdom; with a full refutation of all Mr. Malthus's principles, proving . . . that our population is rapidly decreasing, from the high price of grain, and the long . . . war . . . 1810, 168 p.

34. Godwin, William, *Of Population. An Inquiry Concerning the Increase in the Numbers of Mankind, being an answer*

to Mr. Malthus's Essay on that subject. 1820, 626 p. Detailed examination of Swedish statistics, the population of America, and of other countries. Asserts the possibility of increasing subsistence, criticises Malthus's propositions and his applications of them.

35. Ravenstone, Piercy, A Few Doubts as to the Correctness of Some Opinions Generally Entertained on the Subjects of Population and Political Economy. 1821, iv., 475 p. Objects to the current political economy. "Rent . . . is the idle man's share of the industrious man's earnings," p. 225; "the only benefit industry derives from capital is the necessity of sharing among the idle a larger proportion of its earnings," p. 252.

36. Place, Francis, Illustrations and Proofs of the Principle of Population: including an Examination of the proposed remedies of Mr. Malthus and a reply to the objections of Mr. Godwin and others. 1822, xv., 280. Favors Malthus. Conclusion: Give greater possibilities of enjoyment of life by a wider knowledge of political economy resulting in limited population and a greater accumulation of capital.

37. A Treatise Relative to the Effect of an Increase of Current Money in Promoting the Growth of Population. 1822.

38. Booth, David, Letter to the Rev. T. R. Malthus, M.A., F.R.S., Being an answer to the criticism of Mr. Godwin's work on population . . . in the "Edinburgh Review," to which is added an Examination of the censuses of Great Britain and Ireland. 1823, iv., 124 p.

39. Everett, Alexander Hill, New Ideas on Population. 1823. Increase of population usually was accompanied by increased capacity for the production of food.

40. MacIniscon, John, Principles of Political Economy and of Population: including an examination of Mr. Malthus's Essay on those subjects. 1825, 2 v.

41. Ross, J. C., An Examination of Opinions maintained in the "Essay on the Principles of Population" by Malthus; and in

the "Elements of Political Economy" by Ricardo; with some remarks in reply to Sir J. Graham's "Address to the Land-Owners." 1827, 2 v.

42. Barton, John, Consequences of Excess of Population. 1830.

43. Marshall, John, Topographical and Statistical Details of the County of Berks; exhibiting the Population at each of the three periods, 1801, 1811, and 1821. 1830.

44. Sadler, Michael Thomas, The Law of Population: A Treatise in Six Books; in Disproof of the Superfecundity of Human Beings, and developing the Real Principle of their Increase. 1830. 2 v. Vigorous and important attack on the Malthusian doctrines, theoretical, historical, statistical.

45. Capper, Benjamin Pitts, Topographical Dictionary of the United Kingdom, with Tables of Population of the Principal Towns, &c., in England, Wales, and Scotland, extracted from the returns made to Parliament, 1831. 1831, vi, 1053, 9 p. Maps.

46. Marshall, John, An Account of the Population in each of six thousand of the . . . towns and parishes in England and Wales, as returned to Parliament at each of the three periods, 1801, 1811, & 1821; . . . 1831.

47. Senior, Nassau William, Two Lectures on Population delivered before the University of Oxford in 1828. To which is added a Correspondence between the Author and the Rev. T. R. Malthus. 1829. 3, 90 p. Accepts Malthus's point of view.

48. Cleland, James, Enumeration of the Inhabitants of the City of Glasgow and County of Lanark for the government census of 1831. Glasgow, 1831. 2d ed., 1832, much enlarged.

49. Edmonds, T. Rowe, An Enquiry into the Principles of Population, exhibiting a system of regulations for the poor, designed to lessen, and finally remove, the evils which have hitherto pressed upon the labouring classes of society. 1832. xvi, 336 p.

Optimistic view as to the possibilities of the future through education, emigration, cultivation of waste lands, fisheries, etc.

50. Marshall, John, *Topographical and Statistical Details of the Metropolis*, shewing the population as returned to Parliament . . . 1801, 1811, 1821 and 1831, in each of the ninety-seven parishes within the walls of the City of London; and in each of 106 other parishes . . . within the range of the Metropolitan Police . . . Together with a view of the population of each county of Great Britain at different periods since 1700, . . . 1832.

51. Gorton, John, *Population of Great Britain*, according to the returns made to Parliament in 1831; together with the Annual Value of Real Property, as assessed in 1815. 1832. 2d ed., 1833.

52. Lloyd, William Forster, *Two Lectures on the Checks to Population*. Oxford and London, 1833. The author a professor of Political Economy at Oxford.

53. Marshall, John, *A Digest of* . . . all the Accounts relating to the population, productions, revenues, . . . of the United Kingdom . . . 1833.

54. Marshall, John, *An Analysis and Compendium of all the Returns made to Parliament* (since the commencement of the nineteenth century) relating to the increase of population in . . . Great Britain and Ireland; the Church Establishment of England, Wales, and the amount and appropriation of the parochial assessments, tithes, etc., with arguments deduced from the statistical details . . . 1835.

55. Loudon, Charles, *The Equilibrium of Population and Sustenance demonstrated; showing* . . . the means of obviating the fears of the late Mr. Malthus and his followers. Leamington-Spa, 1836.

56. Alison, Archibald, *The Principles of Population, and their Connection with Human Happiness*. 1840. 2 v. Begun as

an answer to Malthus in 1809. An elaborate work examining population in various times and places, economic and social forces affecting its growth, poor laws, popular education, colonization, corn laws, etc.

57. Burn, John Ilderton, *Familiar Letters on Population, Emigration, &c.* 1841. 2d. ed., 1841. liv., 255 p. Second edition includes "Introductory Letters now added on Labour and the Advantages of the Allotment System." Opposes emigration. No redundancy exists, but if it did, home colonization, the allotment system, and more intensive cultivation would be an adequate remedy.

58. Doubleday, Thomas, *The True Law of Population shown to be connected with the food of the people.* 1842. Population checked by plenty and luxury. (3d ed., 1853, xvi, 338, lxii, p. enlarged.)

59. Holland, George Calvert, *The Vital Statistics of Sheffield.* 1843. xvi, 263 p. Statistics largely from the census. See also under *Conditions of the Labouring Class.*

60. Twiss, Travers, *On Certain Tests of a Thriving Population.* Four Lectures delivered before the University of Oxford, in Lent Term, 1845. 1845. 107 p. Criteria, mode of life, . . . Discussion of mortality tables, longevity, . . .

61. Thornton, William Thomas, *Over-population and its Remedy; or, An Inquiry into the Extent and Causes of the Distress prevailing among the Labouring Classes* . . . 1846. xi, 446 p. Favors New Poor Law, Free Trade, cottage allotments, national education. . . .

62. Welton, T. A., *Statistical Papers based on the Census of England and Wales, 1851, and relating to the Occupations of the People and the Increase of Population, 1841-1851.* 1860. xvi, 167 p.

63. Farr, William, *Vital Statistics: a Memorial Volume of Selections from the Reports and Writings of William Farr, M.D., D.C.L., C.B., F.R.S., Late Superintendent of the Statistical De-*

partment of the Registrar General's Office, England. Edited for the Sanitary Institute of Great Britain by Noel A. Humphreys. 1885. xxiv, 563 p. Chiefly short selections from reports. Population, marriages, births, deaths, life tables, miscellaneous.

64. Levasseur, Émile, *La Population Française. Histoire de la population avant 1789 et démographie de la France comparée à celle des autres nations au 19e siècle.* Paris, 1889-1892. 3 v. Standard French work, might prove useful for comparison.

65. Stangeland, Charles Emil, *Pre-Malthusian Doctrines of Population: a Study in the History of Economic Theory.* New York, 1904. 358 p. A Columbia University dissertation.

§ 2. GENERAL CONDITIONS

The general condition of England may best be studied by means of more detailed works on limited subjects, which have been listed elsewhere. However, books frequently appeared purporting to deal with the general state of affairs and a few of these are given here. Many, dealing with what became notorious as the "condition of England question," are gloomy pictures of a country destined to ruin if the author's panacea is not at once applied. Reform of the currency, the Corn Laws, Parliament, and what not, were warmly advocated by their adherents as the sole means of salvation. Where such works are included in this volume, they usually appear under the heading associated with the particular brand of reform suggested. Other books, such as Eden's *State of the Poor*, Porter's *Progress of the Nation*, and • McCulloch's *Descriptive and Statistical Account of the British Empire*, are reliable and highly valuable storehouses of information of a general character. Works of travel give a more or less superficial survey of conditions, varying in value with the interests and ability of the author. The Speech from the Throne, with which every session of Parliament was opened, must be considered as a political document rather than the disinterested view of the prospects of the country that it might seem to be. The *Annual Register*, almanacs, and other periodical publications are repositories for much miscellaneous information, while the Parliamentary Papers form an almost never-failing source. References to other headings would include practically all of them, and would be superfluous.

OFFICIAL PUBLICATIONS

- 66. Statistical Abstract for the United Kingdom. 1854 to date. Published annually by the Board of Trade. Each volume contains statistics for the preceding fifteen years, thus volume I.

covers the period from 1840 to 1854. It was reprinted in 1870 with additions to date.

OTHER WORKS

67. Plumard de Dangeul, Remarks on the Advantages and Disadvantages of France and of Great-Britain with respect to Commerce, and to the other means of encreasing the wealth and power of a state. Being a [pretended] translation from the English, written by Sir J. Nickolls. . . . Translated from the French original. 1754. xi, 273 p. Comparison of general conditions in both countries, population, money, resources, government, commercial policy, taxation, monopoly, currency, etc. Result of a visit to Great Britain, undertaken with a view of securing suggestions for the French.

68. Chamberlayne, John, editor, *Magnæ Britanniae Notitia*; or, The Present State of Great Britain. 38th ed., 1755. 2 parts. Noted statistical work.

69. Grenville, George, Considerations on the Trade and Finances of the Kingdom since the Peace. 1766. Written for political purposes.

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82. Reflections on the Present State of the British Nation, by British Common Sense. 1791. 124 p. Plea for many reforms. Strong language on the amount of beggary and crime. Police indicted for attempting only punishment, not prevention of crime. Poor Law System said to be demoralizing, inculcating idleness, leading to law suits over settlement, causing competition with ordinary labour, or providing for useless labour. Justices of the Peace should be elected, instead of being irresponsible volunteers.

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92. Bristed, John, *The Resources of the British Empire, together with a view of the probable result of the present contest between Britain and France.* New York, 1811. Largely political.

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of the Colonies and Dependencies of the Crown, from their first establishment, including the Countries under the management of the East India Company; with Observations on the National Resources for the beneficial employment of a redundant Population. The whole illustrated by copious Statistical Tables. 1814. xii, 456, 93 p. 2d ed., revised and enlarged, 1816. Elaborate, drawn mainly from official sources.

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107. An Answer to the Speech of the late Right Hon. W. Huskisson, delivered on Thursday, March 18, 1830, on the State of the Country. 1831. 92 p. "I can trace the distresses of the country to two only of the causes dwelt upon by Mr. Huskisson; viz., the inadequate reward of labour, and the *action* of the Currency." p. 13. Not a little theorizing about hypothetical conditions. The latter part gives a sketch of the condition of the country from 1811, especially in relation to the Bank of England. Overproduction was intensified by the issue of paper money.

108. Mac Queen, Thomas Potter, The State of the Country in 1832. 1832. 50 p. The "country [reduced] to a universal state of misery, confusion and wretchedness." Extend trade, let the currency alone, and conditions will right themselves. Remarks on topics of general interest in politics and economics, as foreign relations, agriculture, trade, finance.

109. Mundell, Alexander, A Comparative View of the Industrial Situation of Great Britain, from the year 1775 to the present time. With an examination of the causes of her distress. 1832. xv, 133 p. Attacks the monopoly of the Bank of England, wants silver the monetary standard. Go back to the system of Corn Laws in force before 1815. Reform the Poor Laws. Lessen excise and increase customs.

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111. D'Haussez, Charles Lemercher de Longpré, (Baron), Great Britain in 1833. 1833. 2 v. Miscellaneous chapters on the more obvious, especially social aspects of English life. Volume II more valuable, includes short chapters on hospitals, prisons, agriculture, manufacture, etc. French editions, Bruxelles, 1833, 2e éd., Paris, 1834.

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118. Porter, George Richardson, *The Progress of the Nation in its Social and Commercial Relations from the beginning of the Nineteenth Century to the Present Day*. 1836. New editions bring the figures down to date in 1843, 1846, 1851, 1912. The latest, edited by F. W. Hirst. Exceedingly valuable collection of information on all aspects of English social and economic history during the nineteenth century. The statistical tables are compiled from the best available sources, often official, and explanations, criticisms, and warnings are included. The failure of the government to collect statistical data with any degree of fullness and regularity, and the lack of fixed policy mean gaps and changes in form that render comparison from year to year often difficult if not impossible. Porter became the chief of the statistical department of the Board of Trade.

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127. Mayhew, Henry, Labor and the London Poor. 1850. For a full notice of this refer to the heading "The Condition of the Working Class."

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130. Mulhall, Michael George, The Progress of the World in Arts, Agriculture, Commerce, Manufactures, Instruction, Railways, and Public Wealth since the Beginning of the Nineteenth Century. 1880. viii, 569 p. A summary of statistics of miscellaneous character in popular form with abbreviated tables and no references to sources.

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132. Mulhall, Michael George, Industries and Wealth of Nations. 1896. xii, 451 p. Object "To arrive at the earnings and wealth of nations in the final decade of the nineteenth century." "To trace the growth of industries during the last sixty years." The

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introduction explains the method of computation. Results are given by nations and then in comparative tables. Population, average age at marriage, occupations, proportion of urban to rural population; working power in foot tons per day, horse power; agriculture, acreage, production in tons, value, hands; forests and fisheries; manufactures; etc., etc., etc. The chapter on Great Britain contains some historical material conveniently brought together. The figures are, however, only approximate, sometimes so broadly so as to be of no significance. The lack of uniformity in historical comparisons illustrates the difficulty of endeavoring to work with statistics except during recent years, yet the statistics are suggestive if nothing more.

133. Webb, Augustus D., *The New Dictionary of Statistics. A Complement to the Fourth Edition of Mulhall's "Dictionary of Statistics."* 1911. xi, 682 p. More accurate than Mulhall. Tables are accompanied by explanatory notes indicating caution when necessary. References to sources of data are always given. The work covers only recent years but the "List of books and other publications used in the compilation of this Dictionary" offers a useful guide to statistical information.

§ 3. DISTRESS AND CRISES

During the eighteenth century, hard times usually took the form of high prices for food stuffs, due to poor seasons, the failure of crops, and the restrictions of the Corn Laws upon the importation of grain. They were usually attended by a popular outcry against the grain dealers, who were supposed to be enhancing prices unduly, but the more thoughtful attributed the prices to scarcity.

With the close of the century however a change in the character of the periods of depression took place. The old shortage of grain continued to recur, but the changes in industry led to commercial and financial complications. The Bank Restriction Act of 1797, making bank-notes inconvertible, was held responsible for much hardship, while the return to specie payments for notes in 1819 was denounced by many as the cause of numerous failures. The continuance of the Napoleonic wars and the cessation of war were both considered harmful to industry; too much protection to agriculture by the Corn Laws, and too little; too restricted circulation of currency and too extended, were alike put forward as the seat of the evil, while over-production and over-speculation were favorite diagnoses. The literature of distress forms, then, a miscellaneous mass of pamphlets, supplemented by the reports of Parliamentary committees appointed whenever the popular clamor became too great to be disregarded.

In the field of the theory of crises, an idea, now almost generally accepted, was stated in somewhat obscure form by Adam Smith, but quite definitely by Burke, in his "Thoughts and Details on Scarcity," that depressions and periods of prosperity tend to return in regular cycles. Thomas Tooke developed the theory somewhat further, but it took modern form in the work of W. Stanley Jevons. It became the basis of many of the recent works on crises, a few of which are included here to form a background

in view of which the historical depressions take on new significance.

The more notable crises of this period occurred in 1766, 1792, 1796, 1810, 1815, 1825, 1836-9, 1847. . . .

See also *Agriculture, Corn Laws, Money and Banking, Economic Theory, Condition of the Country, Prices.*

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OTHER WORKS

135. *Reflections on the Present High Price of Provisions; and Complaints and Disturbances arising therefrom.* 1766, 50 p.

136. Tucker, Josiah, *The Causes of the Dearness of Provisions Assigned; with effectual Methods of Reducing the prices of them.* Humbly submitted to the Consideration of Parliament. Gloucester, 1766.

137. Forster, Nathaniel, D. D., *An Enquiry into the Causes of the Present High Price of Provisions.* 1767. viii, iii, 216. p. Discourage luxury, encourage manufactures requiring much labor, reduce taxes and shift them to luxuries. Above all else favor agriculture, maintain strict Corn Laws.

138. Jenyns, Soame, *Thoughts on the Causes and Consequences of the Present High Price of Provisions.* 1767. 26 p. Causes are the increase of national debt, and of individual wealth.

139. *Political Speculations; or, An attempt to discover the causes of the dearness of provisions and high price of labour in England.* 1767. v-viii, 5-41 p.

140. An Answer to a Pamphlet, intituled, "Thoughts on the Causes and Consequences of the present high Price of Provisions." . . . 1768. 34 p. Considers the national debt the sole cause.

141. Hustler, John, The Occasion of the Dearthness of Provisions, and the Distress of the Poor: with Proposals for Remedi- ing the Calamity, . . . wherein the policy of the bounty given upon the exportation of corn, the inclosing of commons, and enlarging of farms, are impartially considered. . . . By a manufacturer. 1767. 3-49 p. Opposes the bounty and the rapid increase of enclosures. Urges encouragement of sheep-breeding.

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145. An Inquiry into the Connection between the Present Price of Provisions and the Size of Farms; with Remarks on Population as affected thereby. To which are added, Proposals for preventing Future Scarcity. By a Farmer. 1773. Encour- age enclosures, cultivate waste lands, have free trade in corn.

146. Moore, Francis, Considerations on the exorbitant Price of Provisions: setting forth the pernicious effects which a real scarcity of the necessaries of life must eventually have upon the commerce, population, and power of Great Britain. To which is added a plan to remove the cause of our present national distress. . . . 1773. 98 p.

147. The Precipitation and Fall of Messrs. Douglas, Heron and Company, late Bankers in Air, with the Causes of their Dis-

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149. Phillips, Catherine, Considerations on the Causes of the High Price of Grain, and other articles of Provision . . . 1792. 90 p.

150. Thoughts on the Causes of Present Failures. 2d ed. 1793. Peace is the only remedy, since war and the consequent stoppage of specie payments by the Bank of England cause the trouble.

151. Observations on the Present High Price of Corn. Bristol, 1795.

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153. Hodson, Septimus, An Address . . . on the Present Scarcity and High Price of Provisions. To which is added an appendix, containing a table of the average price of wheat in every year, from the year 1595 to 1790, inclusive. 1795. 57 p. Scarcity due to poor and late season. All should economize, relief be provided for the poor.

154. Lettsom, John Coakley, Hints respecting the Distresses of the Poor. 1795. 47 p. Suggests substitution of potatoes for bread, gives recipes.

155. A Letter to Sir T. C. Bunbury, Bart., one of the Members of Parliament for the county of Suffolk, on the poor

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159. Morris, Edward, A Short Inquiry into the Nature of Monopoly and Forestalling. 1796. 3d ed. 1800, iv, 54 p. A defense of the corn-dealers.

160. Blane, Sir Gilbert, bart., Inquiry into the Causes and Remedies of the Late and Present Scarcity and High Price of Provisions, in a Letter to the Right Hon. Earl Spencer . . . 1800. 71 p. Opposes the clamor against middlemen and supposed monopolies, considers other suggested causes. Cultivate waste land.

161. Brand, John, A Determination of the Average Depression of the Price of Wheat in War, below that of the preceding Peace; and of its Readvance in the following; . . . 1800. 102 p. Statistical study of the effect on prices of war, the supply of metals, etc., rejects war as the cause.

162. Brooke, William, The True Causes of our Present Distress for Provisions; with a natural, easy, and effectual plan, for the future prevention of so great a calamity. With some hints respecting the absolute necessity of an encreased population. 1800, iv, 85 p. Distress due to disappearance of small farms, poor methods of farming, neglect of fisheries, tithes.

163. Burke, Edmund, *Thoughts and Details on Scarcity*; originally presented to the Right Hon. William Pitt, in the month of November, 1795. 1800. xvi, 48 p. The government should refrain from interference with agriculture, no regulation of wages of labor should be attempted, no public granaries established; nor should the distilleries be stopped.

164. Edwards, George, *Effectual Means of Providing*, according to the exigencies of the evil, against the Distress apprehended from the Scarcity and High Prices of different articles of Food. 1800. 45 p. A number of practical suggestions for immediate relief, in a letter to Arthur Young. Proposes appropriation of money, importation of grain, measures for conserving existing supplies.

165. *An Inquiry into the Causes and Remedies of the Late and Present Scarcity and High Price of Provisions* . . . 1800. 71 p.

166. Long, Charles, baron Farnborough, *A Temperate Discussion of the Causes which have led to the present High Price of Bread*. Addressed to the Plain Sense of the People. 1800. 43 p. Refutes arguments that war, taxation, monopoly, etc., are responsible, attributes distress to scarcity, coupled with a regular deficiency in the production of wheat for the needs of the country. Calls upon the magistrates to keep order, and Parliament to avoid hasty legislation. Optimistic about the future.

167. Malthus, Thomas Robert, *An Investigation into the Causes of the Present High Price of Provisions* . . . 1800. 28 p. Poor relief, by enabling poor to purchase larger quantities, raised prices. "I am most strongly inclined to suspect, that the attempt in most parts of the kingdom to increase the parish allowances in proportion to the price of corn, . . . is, comparatively speaking, the sole cause, which has occasioned the price of provisions in this country to rise so much higher than the degree of scarcity would seem to warrant. . . ." p. 4. Distress is the result of population outstripping means of subsistence.

168. Nasmith, James, D.D. *An Examination of the Statutes now in Force relating to the Assize of Bread; with Remarks on the bill intended to be brought into Parliament by the County Bakers.* Wisbech, 1800. 85 p. Discusses the principles determining the making of price tables, and offers a new plan.

169. Holroyd, John Baker, Earl of Sheffield, *Remarks on the Deficiency of Grain, occasioned by the bad Harvest of 1799; on the means of present relief, and of future plenty.* With an appendix containing accounts of all corn imported and exported, with the prices from 1697 to the 10th October 1800; and also several other tables. 1800. 121 p. and 10 tables. Shortage in the crop, not monopoly, responsible for high prices. Suggests means of temporary relief.

170. Symmons, John, *Thoughts on the Present Prices of Provisions, their Causes and Remedies; addressed to all ranks of people.* By an Independent gentleman. 1800. 87 p.

171. Turton, Sir Thomas, *An Address to the Good Sense and Candour of the People, in behalf of the Dealers in Corn: with some few observations on a late trial for regrating.* 1800, 178 p. Mainly a refutation of the charges against the corn dealers of artificial stimulation of prices.

172. Young, Arthur, *The Question of Scarcity plainly stated and remedies considered.* With observations on permanent measures to keep wheat at a more regular price. 1800, 100 p. Unfavorable seasons, resulting in small crops, caused scarcity and high prices. Gives results of detailed inquiries. Cultivate potatoes, extend cottage system. Pass a general inclosure bill, secure accurate data of prices, take a census of population.

173. Anderson, James, *A Calm Investigation of the Circumstances that have led to the Present Scarcity of Grain in Britain; suggesting the means of alleviating that evil, and of preventing the recurrence of such a calamity in future.* 1801. 94 p. 1 table. Defends bounty on exported corn. Encourage more intensive cultivation.

174. Parquot, P. D., Letters to His Grace, the Duke of Portland, and the Earl of Liverpool, &c., on the Present High Price of Provisions. Manchester, 1801. 74 p. 2d ed. Calls emphatically for relief of the poor. Force farmers and dealers to sell. Miscellaneous collection of letters and newspaper quotations.

175. Chapman, William, Observations on the Prevention of a future Scarcity of Grain, by Means contributive to the Benefit of the Landed, Commercial, and Manufacturing Interests. 1803. 30 p.

176. Considerations on the Importation of Foreign Corn . . . shewing that the present high price of everything has been caused by the excessive increase of the rent of land, and a circulating taxation. 1814. 115 p.

177. Dumbell, John, A Letter to the Right Honourable Sir William Domeville, Bart., the Lord Mayor of London. 1814. 147 p. Defends the setting by the Mayor of a maximum price for bread. Argues against the abolition of the assize of bread for London, to prevent riots and give confidence that the price asked is fair. Unfolds a plan for a joint-stock baking and milling company, for which the right to use water power is requested. Includes a prospectus of the scheme.

178. Wilson, Robert, An Enquiry into the Causes of the High Prices of Corn and Labour, the Depressions on our Foreign Exchanges and High Prices of Bullion, during the late war; and consideration of the measures to be adopted for relieving our farming interest from the unprecedented difficulties to which they are now reduced, in consequence of the great fall in the price of their produce since the peace; with relative tables and remarks, &c. Edinburgh. 1815. iv, 87 p. High prices are due to adverse rate of foreign exchange, not to over-issue of Bank notes.

179. Letter on the Origin, Causes, Progress and the real and probable Consequences of the Distress of Great Britain. 1816.

180. Preston, Richard, Further Observations on the State

of the Nation, the Means of Employment of Labour, the Sinking Fund, and its Application. Pauperism. Protection requisite to the Landed and Agricultural Interests. 1816. 44 p. Dark picture of conditions. The government should economize, stop the increase of pauperism, attack unemployment, levy a general tax instead of the poor-rate on land, relieve taxation by using part of the income from the sinking fund, protect agriculture, reduce the legal interest rate.

181. Torrens, Robert, A Letter to the Earl of Liverpool, on the state of the agriculture of the United Kingdom, and on the means of relieving the present distress of the farmer, and of securing him against the recurrence of similar embarrassments. 1816, 34 p.

182. An Exposition of the Principal Cause of the National Distress, particularly in Manufacturing Districts; with some Suggestions for its Removal. 1817.

183. Playfair, William, A Letter on our Agricultural Distresses, their Causes and Remedies; accompanied with Tables and Copper-Plate Charts, shewing and comparing the Prices of Wheat, Bread and Labour, from 1550 to 1821, addressed to the Lords and Commons. 1821. 1822, 2d ed. with additional charts. viii, 72 p. Concludes "that credit given and taken by the bakers and dealers is the great cause of the farmer's receiving a low price while the consumers pay a high one." Therefore, prohibit credit above a certain amount, and fix assize again, prevent monopoly and speculation in provisions. Interesting chiefly for its colored charts.

184. Cleghorn, James, On the Depressed State of Agriculture. Edinburgh, 1822. 140 p. Causes—transition from war to peace, taxation, over-supply, rise in value of money, importation of corn. Remedies—stricter corn laws, reduction of taxes, of value of money, reform of poor- and tithe-laws, bounty on exportation of corn, . . .

185. The Speech of the Earl of Liverpool delivered in the

House of Lords, on Tuesday, the 26th Day of February, 1822, on the subject of the Agricultural Distress of the Country, and the Financial Measures proposed for its Relief, with an appendix, containing several accounts therein referred to. 1822. 72 p. Asserts that distress is due to the shrinking of the market after the close of the war. Admits that the army and navy ought to be reduced, taxation lowered through economy, and declares necessary "the steady maintenance of an efficient sinking fund." p. 64. Statistical appendix—savings banks, taxes, value of manufactures, public income and expenditure.

186. Symmons, John, *The Causes of the Present Distressful State of the Country Investigated; and the supposed easiest, speediest and most effectual remedies, submitted, with all due respect, to the members of both Houses of Parliament.* 1822, 168 p. One remedy only is necessary—the restoration of the Bank Restriction Act, or, if that is not possible, lower taxes.

187. Whitmore, William Wolryche, *A Letter on the Present State and Future Prospects of Agriculture . . .* 1822. 86 p. Depression due to reaction consequent upon the withdrawal of the stimulus of war to agriculture. The monopoly, secured by corn laws, results in over-production. Considers also other causes frequently assigned for distress: taxation, currency, lessened consumption, importation of foreign corn. Favors repeal of Corn Laws.

188. Tooke, Thomas, *Thoughts and Details on the High and Low Prices of the last Thirty Years.* 1823. 2d ed. 1824. See 252.

189. Estrada, Alvaro Florez, *Reflections on the Present Mercantile Distress experienced in Great Britain, and more or less affecting other nations on the continent of Europe, &c., &c.* 1826, 36 p. "In my opinion, the origin of the prevailing distress is no other than the late alarming diminution in the amount of specie imported annually into Europe, a consequence which could not fail to follow the independence of the country whence the precious metals are chiefly derived—South America." p. 12.

190. Pebrer, Antonio Pablo, Five Questions on the Actual Mercantile Distress. 1826. 34 p.

191. Western, Charles Callis, A Letter to the Earl of Liverpool on the Cause of our present Embarrassment and Distress: and the measures necessary for our effectual relief. 1826. 43 p. "the sole cause of all our difficulties has been *mistaken legislation respecting the currency*;" p. 9. Extend credit currency.

192. Western, Charles Callis, A Letter on the present Distress of the Country, addressed to his Constituents, . . . Chelmsford, 1829. 15 p.

193. Western, Charles Callis, A Second Letter on the present Distress of the Country. . . . Chelmsford, 1830. 8 p.

194. Blane, Sir Gilbert, Reflections on the Present Crisis of Publick Affairs, with an Enquiry into the Causes and Remedies of the existing Clamours, and alleged Grievances, of the Country, as connected with population, subsistence, wages of labourers, education, &c. . . . 1831. 78 p. General survey of conditions with historical comparisons.

195. Reid, William, An Inquiry into the Causes of the Present Distress, with an Attempt to Explain the Theory of National Wealth. Edinburgh, 1833. 34 p. Repeal the Corn Laws, abolish the monopoly of the Bank of England, reform the system of taxation.

196. Palmer, John Horsley, The Causes and Consequences of the Pressure on the Money Market; with a statement of the action of the Bank of England from 1st October, 1833 to 27th December, 1836. 1837. See *Money and Banking*.

197. The late Commercial Crisis; being a retrospect of the years 1836 to 1838: with tables representing a safe, speedy, and equitable plan for the abolition of the Corn Laws. By a Glasgow manufacturer. Glasgow, 1839. 113 p. Tax goods produced by power, to protect hand-loom weavers, repeal the Corn Laws, improve currency and banking system.

198. Western, Charles Callis, (Lord), A Letter to the Presi-

dent and Members of the Chelmsford Agricultural Society, upon the causes of the distressed State of the Agricultural Classes . . . 1839, 16 p. Defends Corn Laws, attributes distress to Currency Act of 1819.

199. Adshead, J., Evidence on Distress in Manchester. 1842.

200. Gray, John, An Efficient Remedy for Distress of Nations. 1842. xv, 224 p. Curious plan for creating a standard of value in form of notes, based on the value of the produce of certain "standard" factories controlled by the government, but competing in the open market.

201. Greg, William Rathbone, Not Over-Production, but deficient consumption, the source of our sufferings. 1842. 28 p. Home consumption has been decreasing, since money formerly used for the purchase of manufactured articles is now spent on food. Free trade and free importation of food stuffs needed. Stimulate consumption to provide for expanding manufactures, and give employment to increasing population.

202. Enderby, Charles, The Distress of the Nation, its Causes and Remedies. 1843, 98 p. The principal cause is mismanagement in distribution: "instead of seeking to make *profits*, . . . we should consume as much of everything as the country is capable of producing." p. 38. "our existing banking and monetary system is at the root of our national distress." Currency should be credit in visible form, paper money issued and guaranteed by the State. Dock banks should be established where goods might be stored and discounted.

203. Torrens, Robert, A Letter to the Rt. Hon. Sir Robert Peel, M. P., on the Condition of England, and on the Means of removing the causes of Distress. 1843. 101 p. The causes of distress are foreign competition, foreign tariffs, and over-investment of capital and labor in manufactures. The remedy is to extend the market and field of investment by extending British territory. Popu-

late the colonies by government assistance to colonists and the whole situation will be relieved.

204. Laing, Samuel, *National Distress; its Causes and Remedies*. 1844. viii, 169 p. Vivid description of the wretched condition of the poor, based mainly upon Parliamentary reports. Greatest stress is laid upon moral causes, but the influences of population, the factory system, and foreign competition are also investigated. Some reflections are made upon remedial measures, free trade, taxation, currency, emigration, poor laws, sanitary regulations, and education.

205. Aytoun, James, *The Railways and the Currency as connected with the present monetary crisis*. Edinburgh, 1847. 36 p. A series of letters contending that over-speculation in railways caused the crisis. Opposes any extension of circulation.

206. Baring, Alexander, Lord Ashburton, *The Financial and Commercial Crises Considered*. 3d ed. 1847. 40 p. Due to over-extended circulation, railroad speculation. Favors double or silver standard.

207. Evans, D. Morier, *The Commercial Crisis, 1847-8; being facts and figures illustrative of the events of that important period, considered in relation to the three epochs of the railway mania, the food and money panic, and the French Revolution*. . . . 1848. 2d ed. revised and enlarged 1849. xvi, 155, ciii p. Tables, bank returns, prices, failures. Standard work on this crisis.

208. Burness, W., *Essay on the Elements of British Industry; comprising remarks on the causes of our present depressed state, together with suggestions for its removal*. 1848.

209. Harvey, James, *The National Distress: its Financial Origin and Remedy*. With the proposal of a common principle of union amongst the promoters of an equitable adjustment of the currency; and a vindication of the railways. 1848. 260, 8 p. The value of money is measured by the average rate of interest.

Regulate the quantity of circulation so as to secure a fixed rate of interest, and the distress will disappear.

210. Hubbard, John Gellibrand, A Letter . . . on the Monetary Pressure and Commercial Distress of 1847. 1848. 50 p. See *Money and Banking*.

211. Somers, Robert, Letters from the Highlands; or, the Famine of 1847. 1848.

212. Wirth, Maximilian Wilhelm Gottlob, Geschichte der Handelskrisen, Frankfurt am Main, 1858. 2d ed. 1874. 3d ed. 1883. Long the standard historical work. Descriptive, but for a brief theoretical discussion. Crises from that of Lübeck in the early seventeenth century are treated.

213. Duncan, Jonathan, Commercial Panics: Their Cause and Cure. Being an examination into the practical operation of the Bank Charter Act. 1861. xvi, 194 p. Restates the coin vs. paper controversy, gives a history of theories from Plato to James Mill, and a history of coin. Examines the effects of the Bank Restriction Act.

214. Juglar, Clément, Des crises commerciales et de leur retour périodique en France, en Angleterre, et aux États-Unis. Paris, 1862. 2d ed. 1889, xx, 560 p. Standard work, giving a history of crises, a study of their origin and causes, the effect of credit, banks, exchange, . . . and remedies.

215. Hyndman, Henry Mayers, Commercial Crises of the Nineteenth Century. 1892. 174 p. Short historical sketches of the principal depressions of the nineteenth century, from the Socialist view-point. The remedy suggested is the socialization of industry and distribution.

216. Bergmann, Eugen von, Die Wirtschaftskrisen. Geschichte der National-ökonomischen Krisentheorien. Stuttgart, 1895. viii, 440 p. Elaborate history of theories, classified according to type.

217. Jones, Edward D. *Economic Crises*. New York, 1900. 251 p. Bibliography. Treats of the relation to crises of the organization of industry, capital, the wage system, legislation and speculation, periodicity of crises, and the psychology of crises, giving in each case summaries of the principal contributions to each theory on the topic under discussion. Foot-note references and a valuable bibliography.

218. Tugan-Baranowsky, Dr. Michael, *Studien zur Theorie und Geschichte der Handelskrisen in England*. Jena, 1901, viii, 425 p. See Tugan-Baranowsky, 1913.

219. Bouniatian, Dr. Mentor, *Geschichte der Handelskrisen in England, 1640-1840*. München, 1908, 312 p. *Studien zur Theorie und Geschichte der Wirtschaftskrisen*, II. Ends with 1839, thus supplements Tugan-Baranowsky. Gives a history of each crisis, with cause attributed—largely financial, and over-production or over-speculation. Numerous references to sources.

220. Lamperrière, Hippolyte, *Les discussions sur les crises de surproduction dans les premières années du xixe siècle*. (Malthus, Sismondi, J. B. Say, Ricardo, Dunoyer, *et al.*) Paris, 1912. 130 p. Dissertation.

221. Hirst, Francis Wrigley, *The Six Panics and other Essays*. 1913, vii, 271 p. A series of clever essays, designed to discredit panics. Devotes three pages to the first panic treated, that of 1847-8.

222. Aftalion, Albert, *Les crises périodiques de surproduction*. Paris, 1913. 2 v. An important modern work on the subject, but gives little for England in this period.

223. Mitchell, Wesley Clair, *Business Cycles*. Berkeley, Cal., 1913, xviii, 610 p. Diagrams, tables. A review of the principal theories of crises, together with a study of industrial organization as the cause of crises.

224. Tougan-Baranowsky, Michel, *Les Crises industrielles en Angleterre*. Traduit sur la 2e édition russe revue et aug-

mentée par l'auteur. Paris, 1913. vii, 476 p. History, based on Parliamentary papers, is used as the foundation of theory. Social effects of crises are also considered historically. The most thorough and recent historical study of the subject.

225. Moore, Henry Ludwell, *Economic Cycles: their Law and Cause*. New York, 1914. viii, 149 p. Diagrams, tables. A study, using intricate mathematical reasoning to show that cycles depend ultimately upon the amount of the crops, which in turn depend upon rainfall.

§ 4. PRICES

The student of the history of English prices has at command two invaluable works, both the result of long labor by well-known economists—Thorold Rogers' monumental "History of Agriculture and Prices" and Thomas Tooke's "History of Prices and of the State of the Circulation."

Their respective titles define the sphere of each work. Rogers confines himself chiefly to the prices of agricultural products. For these he has sought far among obscure accounts of estates and other documentary and printed sources. Fortunately, from very early times a continuous register of prices has been kept by the colleges in their account books, so that the Oxford, Eton and other tables form a notable collection of data. These have been supplemented by Rogers through further research, of which he tells in his introduction. The securing of information on agricultural prices becomes less difficult at the close of the eighteenth century, when the great work of Sir Frederick Morton Eden, "The State of the Poor," appeared. It was to hold its own for many years as containing the best collection of general prices published. At about the same time the *Annals of Agriculture* commenced, and published regularly tables of prices of produce.

Tooke's work is of quite different character from that of Rogers. It includes only a slight account of the earlier history but is a detailed examination of the course of general prices in the nineteenth century. As an economist, vitally interested in the currency question, he colors his work somewhat by his theories, but his ability as a statistician makes the work trustworthy as far as the basic facts are concerned. The sources from which Tooke drew his information and to which he gives references, are not documentary, but such as would be used in a modern investigation

of prices: Parliamentary reports, circulars of brokerage houses, and newspapers. From 1782 *Prince's Price Current*, also known as the *London Price Current*, published prices regularly, and other similar publications were issued. The *Annual Register* usually had a small table of prices. The *Economist* prices became standard from their publication in 1843 and very soon were quite wide in their scope. The trade journals which were coming into existence at the close of this period provide more detailed prices at times than would otherwise be available.

The commercial dictionaries supply some data as to prices. The currency question involved necessarily a discussion of prices. Some material may then be found by referring to books listed under *Money and Banking*, and some of the books under *Distress* will repay the labor of search.

INDEX NUMBERS

In an effort to discover a means of comparison of general prices over long periods of time, the index number has been devised. The modern index number is a percentage of the average prices of a large number of articles expressed in terms of a base which itself is an average of prices over a series of years, usually a decade, or perhaps five years.

Suggestions of such an idea were made during the eighteenth century, in a very crude form, in Fleetwood's *Chronicon Preciosum*, and later by Sir George Shuckburgh Evelyn in an article contributed to the Journal of the Royal Society. It was improved somewhat by Joseph Lowe, in his "The Present State of England" and by G. Poulett Scrope in his "Principles of Political Economy." W. Stanley Jevons was the first to construct a really scientific index number, in an essay reprinted in his "Investigations in Currency and Finance." The most notable English index numbers are that in the *Economist*, started by William Newmarch, but known by the name of the journal, and Sauerbeck's, appearing in the *Journal of the Royal Statistical Society*.

Accounts of methods of construction of index numbers may be found in most manuals of statistics. The Final Report of the

Gold and Silver Commission (Parliamentary Papers, Reports, 1888, v. XLV.) includes an account of the principal index numbers: the Economist, based on the average of wholesale prices of twenty-two commodities in London from 1845 to 1850; Sauerbeck's, which uses as base the wholesale London prices of forty-five articles from 1867 to 1877, but went back to 1837; and Palgrave's, Soetbeer's, and Giffen's, constructed by somewhat different methods and less useful for this period.

A notable study of index numbers was published in the reports of the British Association for the Advancement of Science for 1887, 1888, and 1889, by Professor F. Y. Edgeworth, secretary of a committee appointed to inquire into the best methods of constructing index numbers.

C. M. Walsh's *Measurement of Exchange-Value* forms an elaborate and valuable study of possible standards of value, methods of averaging, especially Scrope's and Jevons', and has a full bibliography.

The latest important contribution to the subject is that of Professor Wesley C. Mitchell, prepared for the United States government, a guide to index numbers of all countries, and a treatise on methods of construction.

BIBLIOGRAPHY

226. A List of Works in the New York Public Library relating to Prices, in the New York Public Library Bulletin, vol. VI, pp. 119-159. 1902.

227. Bibliography of the Prices of Cereals. Published by the Royal Statistical Society. 1907. 16 p. 4to. Prices in all the principal countries are included, and both official and unofficial material is represented. Periodical publications of societies are omitted.

OFFICIAL PUBLICATIONS

228. Tables of Revenue, Commerce, Population, etc., published by the Statistical Department of the Board of Trade, repub-

lished the prices of grain from the London Gazette, annually from 1833.

229. Accounts and Papers, Trade and Navigation, and Corn, include prices, published annually.

230. Reports of Committees, published in the Parliamentary Papers, often contain prices. The indexes to Parliamentary Papers are a guide to the material to be found there. Many of the reports are retrospective and cover a considerable period, previous to the date of the report.

PERIODICAL PUBLICATIONS

231. London Gazette, 1665 to date, after 1770 contains weekly official reports of prices of grain.

232. Prince's Price Current, 1782-1880, the oldest and most important of the periodicals devoted to the record of prices.

233. London Mercantile Price Current, 181?-1864.

234. London New Price Current, 1818-1870.

235. London Price Current, 1822-1826, continued as British and Foreign Price Current.

236. Prices of Coal at the London Coal Market, 1822-1841, Newcastle, 1822-1841.

237. Gentleman's Magazine, 1731-, includes prices of provisions.

238. The Economist, 1843 to date, contains weekly reports of all important commodities. The annual summary, published in March, is most valuable. Monthly summaries are also provided.

239. Journal of the Statistical Society, 1839 to date, contains articles which include prices. See the indexes to the Journal.

Other newspapers, especially those paying particular attention to commercial affairs, quote prices. A few are noted in the introduction of vol. 7, Part I, of Rogers' *History of Agriculture and Prices*.

OTHER WORKS

240. Fleetwood, William (bishop of Ely), *Chronicon Preciosum*; or, *An Account of English Money, the price of corn, and other commodities, for the last 600 years*. In a letter to a student in the University of Oxford. 1707. 181 p. 2d ed., 1745.

241. *An Enquiry into the Prices of Wheat, Malt, and occasionally of other Provisions; of Land and Cattle, &c., as sold in England from the Year 1000 to the Year 1765*. 1768. "Attributed to Michael Combrune, Esq., Brewer, but said to be due to Sir Charles Whitworth." [Jevons, *Currency and Finance*, p. 367.]

242. *An Inquiry into the Connection between the Present Price of Provisions and the Size of Farms; with Remarks on Population, as affected thereby*. To which are added, *Proposals for preventing future Scarcity*. By a Farmer. 1773. A tract in favor of enclosures and free trade in corn.

243. Eden, Sir Frederick Morton, *The State of the Poor*, . . . 1797. Contains invaluable records of prices. See under the *Condition of the Laboring Classes*.

244. Evelyn, Sir George Shuckburgh, *A Table exhibiting the Prices of various Necessaries of Life, together with that of Day Labour, in sterling Money, and also in Decimals, at different Periods, from the Conquest to the present Time, derived from respectable Authorities* . . . in the *Philosophical Transactions of the Royal Society*, 1798. pp. 133-182.

245. Boyd, Walter, *A Letter to the Right Honourable William Pitt, on the Influence of the Stoppage of Issue in Specie at the Bank of England; on the prices of Provisions, and other commodities*. 1801, viii, 112 p. See *Money and Banking*.

246. Young, Arthur, *An Enquiry into the Progressive Value of Money in England, as marked by the price of agricultural products; with observations upon Sir G. Shuckburgh's Table of appreciation* . . . 1812, viii, 65-137 p. Criticises severely Shuck-

burgh. Quotes prices and gives authorities. Result of extensive study.

247. Galton, S. Tertius, A chart exhibiting the relation between the amount of Bank of England notes in circulation, the rate of foreign exchanges, and the prices of gold and silver bullion and of wheat; with observations. 1813.

248. Considerations on the Importation of Foreign Corn, . . . shewing, that the present high price of everything has been caused by the excessive increase of the rent of land, and a circulating taxation . . . 1814. 115 p. Free trade, and shifting of taxation to bring it to bear on capital is advised.

249. Duppa, Richard, Observations on the Price of Corn as connected with the commerce of the country and the public revenue. 1815.

250. Young, Arthur, An Inquiry into the Rise of Prices in Europe during the last Twenty-five Years, compared with that which has taken place in England; with Observations on the Effects of High and Low Prices. 1815. Uses as authorities the official tables of grain prices from 1771, the printed accounts of the contract prices of beef, pork, butter and cheese, kept by the Victualling Office since 1687, the registers of prices of Greenwich Hospital and Bethlehem Hospital, and the War Office contract prices for horses.
(2 pamphlets)

251. Rainier (Rear-Admiral), J. S., A Synopsis of the Prices of Wheat, and of the Circumstances affecting Them, particularly of the Statutes which relate to it, from the Commencement of the Thirteenth Century to the End of 1822, . . . with Statements which indicate the Situation of the Country as to its Agriculture, Commerce, and Manufactures, Population, Public Revenue, &c. 1823. v, 10 p. Gives prices and modern equivalents.

252. Tooke, Thomas, Thoughts and Details on the High and Low Prices of the last Thirty Years. 1823. viii, 61, 185, 85,

77 p. 2d ed. 1824. Effect of the war and of the seasons; table of prices, 1782-1822; exports and imports . . . Expanded in his History of Prices.

253. West, Sir Edward, Price of Corn and Wages of Labour, . . . and an Attempt at an Exposition of the Causes of the Fluctuation of the Price of Corn during the last Thirty Years. 1826. vii, 150 p. Criticism of Adam Smith, Ricardo, and Malthus. Cites Burke, Tooke on cycles of crops. Declares all prices regulated by the proportion which the supply and the demand bear to each other.

254. Cooke, Layton, Statistical Charts ^{of what?} . . . 1828. No. 105.

1838 255. Tooke, Thomas, A History of Prices and of the State of the Circulation, from 1793 to 1837; preceded by a brief sketch of the Corn Trade in the last two centuries. 1828. 2 v. Additional volumes, published in 1840, 1848 and 1857 brought the work down to 1857. The fifth and sixth volumes were published by Tooke and William Newmarch; copies of them are scarce, since a large part of the edition was destroyed by fire.

The history of prices resulted from an effort to supply data for an inductive discussion of theories of causes of low prices after 1819. Three causes of fluctuations are considered, variety of seasons, the war, the currency. They are preceded by a general *a priori* discussion in which Tooke prefers the seasons argument. The historical sketch in the earlier volumes gives prices and conditions by about five-year groups, followed by a summary for each period. The later volumes, dealing with shorter periods, treat the subject more fully. Vol. V, and Vol. VI include railways and the Free Trade movement. Tables of prices.

256. Lloyd, William Forster, Prices of Corn in Oxford in the Beginning of the Fourteenth Century: also from the year 1583 to the present time. To which are added some . . . notices of Prices in other places. Collected from manuscripts at Oxford

. . . 1830. viii, 100 p. Tables and some documents. Prices were kept regularly at Oxford from 1617. ?

257. Badcock, Benjamin, Tables exhibiting the Prices of Wheat, from the year 1100 to 1830; also the prices of Beans, Barley, and Oats from 1790 to 1830. 1832. 12 p. Folio. Diagrams. < 1832 14. v. cl. y

258. Corbet, Thomas, An Inquiry into the Causes and Modes of the Wealth of Individuals; or, the Principles of Trade and Speculation explained, 1841. xi, 256 p. Includes some statistics of prices. ?

259. Stirling, Patrick James, The Philosophy of Trade; or, Outlines of a Theory of Profits and Prices, including an Examination of the Principles which determine the Relative Value of Corn, Labour, and Currency. Edinburgh, 1846. xxviii, 380 p. Entirely theoretical.

260. Jevons, William Stanley, The Variation of Prices and the Value of the Currency since 1782. Journal of the Statistical Society, 1864. Republished in *Investigations in Currency and Finance* . . . q. v. 1884. Contains an exposition of his famous theory that variations in the seasons, due to sun spots, cause fluctuations in prices. ?

261. Rogers, James Edwin Thorold, A History of Agriculture and Prices in England from the year after the Oxford Parliament (1259) to the Commencement of the Continental War (1793), compiled entirely from original and contemporaneous records. Oxford, 1866-87, 6 v., v. 7 (1702-93) in two parts, 1902, by Arthur G. L. Rogers. Standard historical work, the result of a life-time of research. More recent developments in statistics have resulted in some criticism of his handling of the data, but the work is not likely soon to be superseded. See H. L. Lutz, Inaccuracies in Rogers' History of Prices, in the *Quarterly Journal of Economics*, Vol. xxiii, pp. 350-8, 1909.

The introduction of vol. vii, part I, is of great value, as indicat-

ing the type and reliability of the sources which must be used for prices in the eighteenth century.

262. United States of America. Reports of the Special Commissioner of the Revenue, Comparison of Wholesale Prices of certain Commodities in the Markets of London and Manchester before and subsequent to the discoveries of the new Gold Fields of California and Australia. 1869.

263. Giffen, Sir Robert, Report to the Secretary of the Board of Trade on recent changes in the amount of the foreign trade of the United Kingdom and the prices of imports and exports. Parliamentary Papers, 1885. From 1840 to 1883, prices of 67 exports, from 1854 to 1883, prices of 100 imports.

264. d'Avenel, Georges, Histoire économique de la propriété, des salaires, des denrées, et de tous les prix en général, de l'an 1200 jusqu'en l'an 1800. Paris, 1894-8. 4 vols. Monumental work, but deals only with France.

265. Price, Langford Lovell Frederick Rice, Money and its Relation to Prices; being an inquiry into the causes, measurement, and effects of changes in general prices. 1896. vi, 200 p. Historical study, valuable.

266. Flux, A. W., Some Old Time Records^{re-} examined: A study in price movements during the present century. in Transactions of the Manchester Statistical Society, 1898-9.

267. Walsh, Correa Moylen, Measurement of Exchange-Value. New York, 1901. xiv, ii, 580 p. Bibliography. A searching theoretical study of methods.

268. Adams, Thomas Sewall, Index Numbers and the Standard of Value. Baltimore, 1902. 31, 20 p. reprinted from Journal of Political Economy, December, 1901.

269. Sauerbeck, Augustus, The Course of Average Prices of General Commodities in England. 1908. Folded diagram, based on his index number from the Journal of the Royal Statistical Society.

270. Layton, Walter Thomas, *An Introduction to the Study of Prices, with special Reference to the History of the Nineteenth Century*. 1912. xi, 158 p. Includes numerous tables and charts, especially, the price index number curve from 1800 to 1910. A general history of prices by a competent economist and statistician.

271. Metcalfe, William M., *The Lordship of Paisley; being the Accompt of Charge and Discharge for the Years 1757, 1758, 1759, and 1760*. Edited with introduction, etc., by W. M. Metcalfe. Paisley, 1912. lxii, 97 p.

272. Mitchell, Wesley Claire, *Index Numbers of Wholesale Prices in the United States and Foreign Countries*. in the *Bulletin of the United States Bureau of Labor Statistics*, Whole Number 173, July 1915. Washington, D. C., 1915. Bibliography. Leading series of index numbers, a history of each series, sources of the quotations, methods of averaging, criticisms. Important.

PART II
COMMERCE AND COMMERCIAL POLICY

§ 1. GENERAL AND HISTORICAL WORKS

The enormous increase in the volume of trade at the close of the eighteenth century is a fact too widely known to need comment here. The official trade and navigation statistics which are the chief repository for information with respect to commerce are ably and fully discussed in a paper by Stephen Bourne, read before the Statistical Society in 1872 (vol. xxxv.) and reprinted as the first essay in a series entitled "Trade, Population and Food." 1880.

The official collection of statistics of trade dates back to the establishment of the office of Inspector-General of Exports and Imports in 1697. Quantities of goods exported and imported, and their value were tabulated. In estimating their value official rates, corresponding closely to market-rates in 1694 were determined. As time went on, market-rates varied widely from the official valuations, but no revision of rates took place. Consequently the value of exports and imports as given in the official statistics came to have no real meaning. The quantities even were open to error, since smuggling was carried out on a large scale. But the most serious disadvantage occurred in the values. Since the result of the old system came to be recognized as misleading, in 1798 the value as declared by the shipper was ascertained in the case of exports. A similar change with respect to imports did not take place until 1871, although values computed by the customs officials had in 1854 been substituted for the official values.

The annual publications of import and export statistics are the most valuable, since the weekly and monthly reports are subject to errors due to incomplete returns, which are corrected before the annual summary appears. These reports, and the numerous commercial dictionaries make the data of commerce readily accessible.

Refer also to works under the headings *Colonies, Shipping.*

OFFICIAL PUBLICATIONS

273. Accounts relating to Trade and Navigation of the United Kingdom. Published annually in the Parliamentary Papers, Accounts and Papers, by the Board of Trade from 1833 to 1870, when they were transferred to the Statistical Department of the Customs.

274. Tables of Revenue, Population, and Commerce of the United Kingdom. 1820. Known as Porter's tables. See 3.

275. Statistical Abstract for the United Kingdom. 1854 to date, covering 1840 to date. See 66.

276. Reports of consuls were not regularly printed until 1855.

PERIODICALS

277. Journal of Commerce, 1839-, continued as the London Journal of Commerce.

278. Nicholson's Weekly Register, 1842-4, continued as London Commercial Record, 1844 to date.

279. London Customs Bill of Entry, 1839 to date.

280. Trade List and Weekly Register of Customs and Parliamentary Accounts. v. 16. 1838-54.

281. Commercial Daily List. 1838-70.

282. The Yearly Journal of Trade, 1836-46, edited by Charles Pope. 7 numbers.

See also Liverpool newspapers and London newspapers.

OTHER WORKS

283. Postlethwayt, Malachy, The Universal Dictionary of Trade and Commerce. 1751. 4th ed., 1774, 2 v. Based upon Savary's *Dictionnaire de Commerce*, and to a large extent a translation of it.

284. Rolt, Richard, A New Dictionary of Trade and Commerce, compiled from the information of the most eminent merchants, and from the works of the best writers on commercial subjects, in all languages . . . 1755, n. p. 2d ed., 1761. Maps. Large folio volume. Based on previous works, such as Postlethwayt.

285. Anderson, Adam, An Historical and Chronological Deduction of the Origin of Commerce. 1764. 2 v. 2d ed., 1789. 4 v. Dublin, 1790, 6 v. Earliest important work on the subject. Annals dealing with miscellaneous subjects, ill organized, but on the whole, reliable.

286. Mortimer, Thomas, A New and Complete Dictionary of Trade and Commerce . . . 1766. 2 v. Postlethwayt, expanded and reorganized.

287. Taube, Friedrich Wilhelm von, Geschichte des engländischen Handelschaft, Manufacturen, Colonien, und Schiffarth, in den alten, mittlern und neuern Zeiten, bis aus das laufende Jahr 1776. . . . Mit einer zuverlässigen Nachricht von den wahren Ursachen des jetzigen Krieges in Nordamerika. . . . Leipzig, 1776. 2d ed., Wien, 1777-8.

288. Whitworth, Sir Charles, State of the Trade of Great Britain in its imports and exports progressively from the year 1697. . . . With a preface and introduction setting forth the articles whereof each trade consists, 1776.

289. Whitworth, Sir Charles, A Register of the Trade of the Port of London, specifying the articles imported and exported. . . . 1777.

290. Beawes, Wyndham, Lex Mercatoria Rediviva: or, The Merchant's Directory. Being a complete guide to all men in business . . . containing an account of our mercantile companies . . . and of the laws concerning aliens, naturalization, and denization. . . . Extracted from the works of the most celebrated British and foreign commercial writers. . . . 4th ed., considerably improved . . . by T. Mortimer. 1783. vi, 944

•70 A GUIDE TO ENGLISH SOCIAL HISTORY

p. Folio. 5th ed., 1792. Includes, in addition to legal information, data on the commerce of all countries.

291. Chalmers, George, Estimate of the Comparative Strength of Great Britain, . . . and of the losses of her trade from every war since the Revolution. 1786. See no. 76.

292. Great Britain, Privy Council. Report of a committee of the Lords of the Privy Council on the trade of Great Britain with the United States. January, 1791. Washington. Department of State, 1888. 79 p.

293. Strictures and Occasional Observations upon the system of British commerce with the East Indies . . . 1792. 210 p.

294. Rose, George, A Brief Examination into the increase of the revenue, commerce, and navigation of Great Britain, since the conclusion of the peace in 1783. Dublin, 1792. 19 p. 4th ed., 1793, with additions. 56 p. Statistics showing increasing prosperity.

295. Alldridge, W. J., The Universal Merchant, in Theory and Practice. American edition, 1797. v, xxxi, 338, 68, 14, 6 p. Tables. Somewhat disjointed observations. The meaning of national wealth explained. Comparison of Great Britain and France with respect to population, agriculture, manufactures, commerce. Function of banks, exchange, currency.

296. Rose, George, A Brief Examination into the Increase of the Revenue, Commerce and Navigation of Great Britain, from 1792 to 1799. 1799: 7 editions. 109 p.

A revised edition, entitled "A Brief Examination into the Increase of the Revenue, Commerce and Navigation of Great Britain, during the administration of the Rt. Hon. William Pitt . . . and a Sketch of Mr. Pitt's Character. 1806. vii, 109 p. 2 editions.

297. Eden, Sir Frederick Morton, Eight Letters on the Peace; and on the Commerce and Manufactures of Great Britain. 1802. vi, 132 p. Statistics of trade.

296. Schell

298. Macpherson, David, *Annals of Commerce, Manufactures, Fisheries and Navigation*, with brief notices of the arts and sciences connected with them. Containing the commercial transactions of the British Empire and other Countries, from the earliest accounts to . . . January 1801; and comprehending the most valuable part of the late Mr. Anderson's *History of Commerce*, . . . With a large Appendix, containing chronological tables of the sovereigns of Europe, tables of the alterations of money in England and Scotland, a chronological table of the prices of corn, &c., and a commercial and manufacturing gazetteer of the United Kingdom . . . 1805. 4 v. Important.

299. Monbrion, ———, *De la prépondérance maritime et commerciale de la Grande-Bretagne, ou des intérêts des nations relativement à l'Angleterre et à la France*. Paris, 1805. viii, 368 p. Traces briefly the history of commerce, with more elaborate discussions of questions of commercial policy, the influence and effects of England's policy and how other nations should meet it.

300. Oddy, J. Jepson, *European Commerce*, shewing new and secure Channels of Trade with the Continent of Europe; detailing the Produce, Manufactures, and Commerce of Russia, Prussia, Sweden, Denmark, and Germany; with a general View of the Trade, Navigation, Produce, and Manufactures of the United Kingdom of Great Britain and Ireland. 1805. xiv, 651 p. Numerous tables.

301. Pope, Charles, *The Merchant, Ship-owner, and Ship-master's Import and Export Guide*; comprising every species of authentic information relative to shipping, navigation, and commerce. 1812. Numerous later editions. The first edition was an abridgment of the customs laws, later ones added excise laws, treaties, proclamations, and orders relating to commerce, articles, money, weights, measures, exchange, rules of shipping, etc., until it became a vast dictionary of information.

302. Rolle, John, *The Trader's Safeguard, and Counting House Guide*. 1812. 3d ed., 1822.

303. Milburn, William, *Oriental Commerce*; containing a geographical description of the principal places in the East Indies, China, and Japan, with their Produce, Manufactures, and Trade from Port to Port; also the Rise and Progress of the Trade of the various European Nations with the Eastern World, particularly that of the East India Company . . . with an Account of the Company's Establishments, Revenues, Debts, Assets, . . . 1813. 2 v. Maps. Author in the service of the East India Company. Much material.

304. Tuckey, James Hingston, *Maritime Geography and Statistics; or, a Description of the Ocean and its Coasts, Maritime Commerce, Navigation* . . . 1815. 4 v.

305. Rördanz, C. W., *European Commerce; or, Complete Mercantile Guide to the Continent of Europe*; comprising An Account of the Trade of all the Principal Cities of the Continent, copious Tables of their Monies, Exchanges, Weights, and Measures, with their proportion to those of England, the local regulations of each place, their tariffs of duties, methods of buying and selling, tares, and other allowances; Together with numerous Official Documents, Ordinances, &c., forming a complete Code of Commercial Information. 1818. xii, 691, 16 p. Shows the conditions under which trade was carried on.

306. Clarke, Samuel, *The Cyclopædia of Commerce*; containing a code of commercial law, practice, customs, and information, and exhibiting the present state of commerce . . . 1819.

307. Torrens, Robert, Home, Colonial, and Foreign Trade. *An Essay on the Production of Wealth*; with an Appendix, in which the Principles of Political Economy are applied to the actual circumstances of this Country. 1821. xvi, 430 p.

308. Moreau, César, *État du commerce de la Grande-Bretagne avec l'Europe, l'Asie, l'Afrique et l'Amerique et chaque pays et colonie, qui en dependent de 1697 à 1824*. London and Paris, 1824.

309. Moreau de Jonnés, Alexandre. Le commerce au dix neuvième siècle. État actuel de ses transactions dans les principales contrées des deux hémisphères; causes et effets de son aggrandissement et de sa décadence, et moyens d'accroître et de consolider la prospérité agricole, industrielle, coloniale et commerciale de la France. Paris, 1825, 2 v. Title explains scope. Many figures in text, but few tables in comparison.

310. Moreau, César, Statistical Chart of the Progress of the Commerce of Great Britain, with each of all of the several parts of the World, in each year since 1696. (s. s. f.) 1828.

311. Mundell, Alexander, Tables, showing the Amount, according to official and declared value, of every article of home produce and manufacture exported in every year, from 1814 to 1828. Also of leading articles of import. With observations. 1829. 38 p. 3 tables. Statistics showing fall in prices.

312. Okey, Charles Henry, A Concise Digest of the law, usage and custom relating to the commercial and civil intercourse of the subjects of Great Britain and France. Paris. 1829. 206 p. Simplified summary of the laws and judicial decisions relating to foreigners in France.

313. Gülich, Gustav von. Geschichtliche Darstellung des Handels, der Gewerbe und des Ackerbaus der bedeutendsten handelstreibenden Staaten unserer Zeit. (Continued under other titles.) 5 vols. Jena. 1830-45.

314. Moreau, César, Industrie britannique vue dans ses exportations pour chaque pays de 1698 à 1826. Paris, 1830.

315. Martin, Robert Montgomery, British Relations with the Chinese Empire in 1832. Comparative statement of the English and American trade with India and Canton. 1832. 148 p. Defence of the East India monopoly of the tea trade. Gives tables illustrating the amount of trade, profits, etc.

316. McCulloch, John Ramsay, A Dictionary, Practical, Theoretical, and Historical, of Commerce and Commercial Navi-

gation. 1832. New edition, revised and corrected, by Hugh G. Reid. 1880. xxxiv, 1558, 123, 67, 103 p. 11 large maps, 30 charts, statistical tables. Other editions, 1834, 1844, 1847, 1849, 1850, 1869. Articles on such topics as banking, coal, corn laws, cotton, customs, docks, iron, lace, prices, railroads, roads, ships, wool, woollen manufacture, give a large amount of miscellaneous information in compact form.

317. McCulloch, John Ramsay, *On Commerce*. 1833. 128 p. Sub-title, "A Treatise on the Principles, Practice, and History of Commerce." General theories on the advantages of commerce, followed by the means by which it may be facilitated: transportation, banks, etc. The balance of trade theory, laissez-faire, credit, crises, bounties, drawbacks, commercial treaties, the condition of British trade and the causes of its magnitude, are also treated. The history of trade is continued only as far as the death of Elizabeth.

318. Phipps, John, *A Practical Treatise on the China and Eastern Trade: comprising the commerce of Great Britain and India, . . . with China and the Eastern Islands . . . Calcutta*, 1835. xix, 338, lxvi p. History of trade, statistics, and account of tea. The trade was opened to merchants in general in 1834.

319. *Address to the People of Great Britain*, explanatory of our commercial relations with the Empire of China, and of the course of policy by which it may be rendered an almost unbounded field for British commerce. By a visitor to China. 1836. 127 p. Urges the British government to insist upon proper treatment of British merchants by China, so that advantage could be taken of the great opportunities there. Gives a sketch of the history of trade with China.

320. Matheson, James, *The Present Position and Prospects of the British Trade with China; together with an outline of some leading circumstances in its past history*. 1836. 141 p. Author protests against the treatment of English merchants by Chinese.

321. Barber, James, *A Letter to the Right Hon. Sir John*

Cam Hobhouse, Bart., M.P., on Steam-Navigation with India, and suggesting the best mode of carrying it into effect via the Red Sea. 1837. 51 p.

322. Grindlay, Robert Melville, A View of the Present State of the Question as to Steam Communication with India. 1837. 99 p. 1 map. Plea for government assistance for the Red Sea route. Documentary appendix. ✓

323. Waterston, William, A Manual of Commerce. Edinburgh, 1840. Other editions, 1844, 1859, 1860, 1862, 1865, 1871, 1875. ✓

324. The Dictionary of Trade, Commerce, and Navigation: explanatory of the objects, terms, statistics, laws and regulations of the excise, customs, public affairs, banking, monies, weights, shipping, fisheries, imports, exports, book-keeping, commercial geography, national flags, and the general affairs of business, corrected up to the latest period. 1844. 384 p. Illus.

325. Waterston, William, A Cyclopædia of Commerce, Mercantile Law, Finance, and Commercial Geography. Edinburgh, 1843. New edition, containing the present tariff and an essay on commerce by J. R. McCulloch. 1847. New edition, corrected and improved, with a supplement by P. L. Simmonds. 1863. iv, 672, 328 p.

326. Buchanan, David, Inquiry into the Taxation and Commercial Policy of Great Britain; with observations on the principles of currency and exchangeable value. Edinburgh, 1844. xiv, 340 p.

327. MacGregor, John, Commercial Statistics. A Digest of the productive resources, commercial legislation, customs tariffs, navigation, port, and quarantine laws and charges, shipping, imports and exports, and the monies, weights, and measures of all nations. Including all British Commercial treaties with foreign states . . . 1844-50. 5 v. Valuable work, compiled from information collected during travels in America, and on the

Continent. Arranged according to the different nations, in alphabetical order. The title indicates the subjects treated. The author was one of the joint secretaries of the Board of Trade.

328. Craik, George Lille, *The History of British Commerce from the Earliest Times*. Reprinted from the *Pictorial History of England*; with Corrections, Additions, and a Continuation to the present day. 1844. 3 vols. A handy epitome written as annals. Statistical data, but not in tabular form. A good deal taken from Anderson, Macpherson, Chalmers, Tooke, and Porter.

329. Levi, Leone, *Chambers and Tribunals of Commerce, and the proposed General Chamber of Commerce in Liverpool*. 1849.

330. Levi, Leone, *Commercial Law . . . or the Mercantile Law of Great Britain, compared with the Codes of other Countries*. 1850-1. 2 v.

331. Britten, Bashley, *Historical and Statistical View of the Progress of British Commerce*. 1852.

332. Scherer, Hermann, *Allgemeine Geschichte des Welthandels*. Leipzig, 1852-3. 2 v.

333. McCulloch, John Ramsay, *A Select Collection of early English Tracts on Commerce, from the originals of Mun, Roberts, North, and others, with a preface and index*. 1856. xv, 603 p. One hundred copies were printed under the direction of McCulloch, for the Political Economy Club of London.

334. McCulloch, John Ramsay, *A Select Collection of Scarce and Valuable Tracts on Commerce, from the originals of Evelyn, Defoe, Richardson, Tucker, Temple, and others*. 1859. xvi, 623 p. One hundred and fifty copies printed for Lord Overstone for private distribution. Date from 1601 to 1788, but nearly all earlier than this period.

335. Beer, Adolf, *Allgemeine Geschichte des Welthandels*. Wien, 1860-84. 4 v. Includes industries, colonies, currency, etc.,

as well as commerce in more limited sense. Chapters on Great Britain.

336. Goldschmidt, Levin, *Universalgeschichte des Handelsrechts*. Stuttgart, 1864. 2d ed., 1875. 1891. V. I of *Handbuch des Handelsrechts*.

337. Bourne, Henry Richard Fox, *English Merchants: Memoirs in Illustration of the Progress of British Commerce*. 1866. 2 v. ✓

338. Bourne, Henry Richard Fox, *The Romance of Trade*. 1871. viii, 379 p. Trade used in wide sense, fairs, banks, politics in trade, monopolies, invention, fashion, factories, panics. Entertaining but well proportioned.

339. Levi, Leone, *History of British Commerce, and of the Economic Progress of the Nation, 1763-1870*. 1872. xiii, 527 p. 2d ed., 1880. "an account of one of the most important interests in the empire, as a repertory of facts for the financier and economist, as a manual for the British trader all the world over, and a class book for students of political and commercial economics . . . " p. ix. Starts where the original Anderson (285) left off, but is topical, not annalistic. Much quoted.

340. Simmonds, P. L., *Science and Commerce: Their Influence on our Manufactures; A series of statistical essays and lectures describing the progressive discoveries of science, the advance of British Commerce, and the conditions of our principal manufactures in the nineteenth century*. 1872. viii, 639 p. Distinctly popular in tone. Historical part of little value, and the remainder later than this period.

341. Yeats, John, *Technical, Industrial, and Trade Education. A Manual of recent and existing Commerce from the year 1789 to 1872. Showing the development of industry at home and abroad during the Continental System, the Protectionist Policy, and the Era of Free Trade*. 1872. xxv, 409 p. Bibliography. Tables. Dedicated to John Bright. Covers a wide field superficially, ✓

all the principal countries, protection, crises, slavery, industry, politics as affecting trade, etc. Based on official returns.

342. Bourne, Stephen, *Trade, Population and Food*, a series of papers on economic statistics. 1880. xxvii, 348 p. Progress of trade, increase of population and supplies of food investigated. For this period valuable chiefly for information as to methods of collection of the official data, their reliability, and significance.

343. Farrer, Thomas Henry (Lord), *The State in its Relation to Trade*. 1883. 1902 ed. has a supplement by Sir Robert Giffen. xi, 208 p. The book is based on Lord Farrer's experience as Secretary to the Board of Trade, and is a review of the whole field of government influence on and interference with trade. Includes some history. Mercantile law, currency, patents, monopolies, harbors, post office, railways, shipping, tariffs, trade marks, labor legislation, taxation, war.

344. Gibbins, Henry de Beltgens, *The History of Commerce in Europe*. 1891. viii, 233 p. Maps, tables. Outlines of history for use as textbook. Antiquity to date, covering all Europe.

345. Noel, Octave, *Histoire de commerce du monde depuis les temps les plus reculés*. 1891-1906. 3 v. Beautiful maps and illustrations. Bibliography in each volume. Centers about France, but Vol. III, L. I, C. III is on the repeal of the Corn Laws; and L. IV, "Institutions Économiques, Maritimes et Commerciales," dealing with steamboats, companies, canals, posts, banks, chambers of commerce, and the like, has some material on England.

346. Bonnassieux, Louis Jean Pierre Marie, *Les grandes compagnies de commerce. Étude pour servir à l'histoire de la colonisation*. Paris, 1892. iv, 562 p. By far the best on French companies but good on the English, although the author depends to a considerable extent on secondary authorities, especially French ones. Interesting chapters on the nineteenth century colonization companies.

347. Bowley, Arthur Lyon, *A Short Account of England's*

Foreign Trade in the Nineteenth Century, its economic and social results. 1893. Revised edition, 1905. x, 165 p. Ten statistical diagrams. Designed as an introductory text-book. Free trade bias of little importance as the book deals chiefly with undisputed historical facts.

348. Gibbins, Henry de Beltgens, British Commerce and Colonies from Elizabeth to Victoria. 1893. viii, 136 p. Brief text-book, on the expansion of trade and on commercial policy.

349. Mayr, Richard, Lehrbuch der Handelsgeschichte auf Grundlage der Wirtschafts- und Socialgeschichte. Wien, 1894. viii, 351 p. Bibliography. A general economic history of the world since antiquity, centering about trade as the main topic. Very little specifically on England.

350. Cawston, George, and A. H. Keane, The Early Chartered Companies, A. D. 1296-1858. 1896. xi, 329 p. Deals mainly with the early companies, but brings the history of the Hudson Bay and East India Companies down to 1858.

351. Chapman, Sydney J., The History of Trade between the United Kingdom and the United States with special reference to the Effect of Tariffs. 1899. vi, 17, 116 p. 3 diagrams and 4 tables. Cobden Prize Essay for 1898. Based on standard secondary authorities and official returns. A good summary of the course of trade. ✓

352. Day, Clive, A History of Commerce. New York, 1907. xlv, 626 p. Maps. Bibliography. A useful text-book, covering commerce in a wide sense of the term.

353. Sargent, A. J., Anglo-Chinese Commerce and Diplomacy. Mainly in the Nineteenth Century. Oxford, 1907. xii, 332 p. Bibliography. Diagrams. Thorough historical study, backed by statistics. The annotated bibliography deals only with official documents, but gives a good estimate of their value. ✓

354. Nogaro, Bertrand, and W. Oualid, L'évolution du commerce, du crédit et des transports depuis cent cinquante ans.

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Paris, 1914. 444 p. Illus. Part of the *Histoire universelle du travail*. Chronological and topical, treating commerce, transportation, banking, money and credit, etc., with reference to England almost as much as to France. Important study.

§ 2. GENERAL QUESTIONS OF COMMERCIAL POLICY

Aside from the works dealing with the problems of the navigation laws, protective tariff, and corn laws, a number of pamphlets and books appeared which treated of commercial policy in a general sense, or dealt with some less important survivals of the Mercantile system of elaborate government regulation of commerce. The following selection indicates something of the nature of these books, but makes no pretence of even relative completeness. Reference should also be made to the section on Colonies, where, for instance, the question of the East India Company and its monopoly is handled, and to other sections of this part, *Commerce and Commercial Policy*.

355. Nikolls, Sir J., Remarks on the Advantages and Disadvantages of France and Great Britain with respect to Commerce. 1754. See

356. Price, Richard, Great Britain's Commercial Interest Explained. 1755.

357. Essai sur les Causes du declin du commerce étranger de la Grande Bretagne. 1757. 2 v. To check the decline five propositions are offered: I. Imposer, au profit du Gouvernement, une tax sur tous les consommateurs de marchandises de luxe; ôter toutes nos autres taxes, excises, et droits de Douane; et cela fait, rendre tous nos Ports francs. II. Abolir nos monopoles; réunir l'Irlande à l'Angleterre, comme nous avons déjà fait à l'égard de l'Ecosse; et mettre tous les sujets de la Grande-Bretagne sur un même pied relativement au commerce. III. Supprimer les gratifications que nous accordons sur l'exportation des bleds; et construire des magasins publics de bled dans toutes nos provinces. IV. Décourager la paresse par de bons reglements concernant nos pauvres. V. Convertir nos dettes en billets publics, portant intérêt, et négociables par

endossement ; et liquider année par année une partie de ces mêmes dettes. Vol. II, pp. 10-11.

358. Postlethwayt, Malachy, Britain's Commercial Interest explained and improved. . . . A candid inquiry into the secret causes of the present misfortunes of the nation. With proposals for their remedy, also the great advantages which would accrue from a union with Ireland. 1757. 2 v.

359. I. B., M. D. (Temple, William), Vindication of Commerce and the Arts, proving that they are the Source of the Greatness, Power, Riches and Populousness of a State. 1758. reprinted in McCulloch's Select Collection of Tracts on Commerce, pp. 481-561. Notable defence of the growing commerce and manufactures of Great Britain against those who favored the old agricultural system. Written to answer the thesis that agriculture caused increase of population and commerce, decrease. Assumes that a large population is desirable. Examines Bell's *Dissertation* (see *Population*) with searching criticism. Supports statements with many illustrations from history, even remote, and from other countries. Believes that low wages and high prices force labourers to be industrious.

360. An Examination of the Commercial Principles of the late negotiations between Great Britain and France in 1761. In which the system of that negotiation with regard to our colonies and commerce is considered. 1762. 100 p. 2d ed., 1762. 108 p. Holds that not enough importance was attributed to the West Indian Trade, while the value of Canada was overrated.

361. Heathcote, George, A Letter to the Right Honourable, the Lord Mayor; the Worshipful Aldermen, and Common Council; the merchants, citizens, and inhabitants, of the City of London. From an Old Servant. 1762. 90 p. Attacks the preliminary terms of peace. Includes data on existing colonial commerce, especially British and French with America.

362. Tucker, Josiah, The Case of going to War, for the sake of procuring, enlarging, or securing of trade, considered in

a new light. Being a fragment of a greater work. 1763. 59 p. Great injury and little good results from war.

363. Mildmay, Sir W., The Law and Policy of England, relating to trade, examined by the maxims and principles of trade in general; and by the laws and policy of other trading nations. 1765. 125 p. Theoretical discussion of commercial policy.

364. Whately, Thomas, Considerations on the Trade and Finances of this Kingdom, and on the measures of administration, with respect to those great national objects since the conclusion of the peace. 1766. 2 editions. 119 p. National debt, customs, colonial trade regulations, American taxation are considered.

365. Dalrymple, Alexander, A Plan for Extending the Commerce of this Kingdom, and of the East-India Company. 1769. 111 p. Urges the establishment of a colony to the east of existing Indian colonies, describes great advantages to trade which would result from such an establishment.

366. Temple, William (a clothier, not William Temple, the economist), An Essay on Trade and Commerce; containing considerations on Taxes, as they are supposed to affect the Price of Labour in our Manufactories: Together with some interesting Reflections on the Importance of our Trade to America. 1770. Rewritten edition of *Considerations on Taxes*, q. v.

367. Mortimer, Thomas, The Elements of Commerce, Politics, and Finances: In three treatises on these important subjects. In the first, the origin and progress of commerce are traced . . . in the second, the science of universal politics is defined; . . . in the third, an historical account is given of the various modes of raising the public revenues of nations . . . 1772.

368. The Interest of the Merchants and Manufacturers of Great Britain, in the present contest with the colonies, stated and considered. 1774. 50 p. The Colonies have not been subordinated to England's advantage, but rather have been enabled to grow

wealthy through their connection with England. The authority of Parliament in the Colonies must be maintained, and the old trade relations continued.

369. Caldwell, Sir James, *An Enquiry how far the Restrictions laid upon the Trade of Ireland, by British Acts of Parliament, are a benefit or disadvantage to the British dominions in general, and to England in particular.* . . . With an address to the gentlemen concerned in the woollen commerce. . . . Exeter, 1779. xii, 113 p. Believes restrictions on Ireland's trade should be removed, although opposed to union. Enumerates restrictions.

370. Tod, Thomas, *Consolatory Thoughts on American Independence; shewing the great Advantages that will arise from it to the Manufactures, the Agriculture, and Commercial Interest of Britain and Ireland. By a Merchant.* Edinburgh, 1782. 68 p. Trade will rather be improved than suffer, since there will no longer be an unhealthy monopoly.

371. Holroyd, John Baker, Earl of Sheffield, *Observations on the Commerce of the American States with Europe and the West Indies.* . . . 1783. 2 editions. 1st, 75 p., 2nd, 122, 18 p. 3rd ed., 1784. 16, 287, 32 p. Defends the Navigation Laws, but is willing that America should receive the benefit of the most favoured nation clause with respect to duties. Warns against too great concessions from eagerness to secure American trade. Surveys articles of commerce with America. Later editions contain many statistical tables.

372. Champion, Richard, *Considerations on the Present Situation of Great Britain and the United States of America, with a view to their future commercial connexions. Containing remarks upon the pamphlet published by Lord Sheffield, entitled, "Observations on the Commerce of the American States;"* . . . 1783, 2nd ed. 1784. xxiv, 274, 36 p. The preface of the second edition gives authorities for the work. The Navigation Laws should be amended in favor of America, and free ports for American goods

established. Statistics of American trade, shipping, fisheries. Discussion of commercial policy.

373. Commercial-Political Essay on the Nature of the balance of foreign trade, as it respects a commercial intercourse between Great Britain and France, and Great Britain and other nations. 1787. 52 p. Attacks balance of trade theory as fallacious. Argues in favor of the treaty with France. Desires free trade, abolition of monopoly, and encouragement of manufactures.

374. A Complete Investigation of Mr. Eden's Treaty, as it may affect the Commerce, the Revenue, or the General Policy of Great Britain. 1787. 176 p. The treaty between Great Britain and France of 1786, for reciprocal trade advantages is opposed in this pamphlet, as destined to ruin British industry. Detailed examination of the tariff of the treaty, point by point.

375. Historical and Political Remarks upon the tariff of the commercial treaty; with preliminary observations. 1787. 170 p. Gives the terms of the treaty, short histories of trade, and customs; and history and descriptions of industries. Lacks heat of controversy.

376. A view of the Treaty of Commerce with France; Signed at Versailles, September 20, 1786, by Mr. Eden. 1787. viii, 127 p. Opposes reduction of duties in favor of France; examines conditions of trade in various manufactured articles.

377. Tallyrand-Périgord, Charles Maurice de, Prince de Bénèvent. Memoir concerning the commercial relations of the United States with England. 1806. 87 p. Comments on the resumption of trade between Great Britain and the United States, and the failure of France to secure her share of American commerce.

378. Baring, Alexander, 1st Baron Ashburton, An Inquiry into the Causes and Consequences of the Orders in Council; and an Examination of the Conduct of Great Britain towards the Neutral Commerce of America. 1808. iv, 179 p.

379. Erskine, Thomas, Lord, The Speech of Lord Erskine,

in the House of Lords (the 8th of March, 1808), on moving the Resolutions against the Legality of the Orders in Council. 1808. iv, 91 p.

✓ 380. Brougham, Henry, The Speech of Henry Brougham, Esq., before the House of Commons, Friday, April 1, 1808, in support of the petitions from London, Liverpool and Manchester, against the Orders in Council. Taken in short-hand by Mr. Fraser. 1808. ix, 84 p. Trade will be seriously injured and prosperity destroyed if the commerce of America, the only neutral state, is checked by the enforcing of the Orders in Council.

381. Spence, William, Britain independent of Commerce; or, Proofs, deduced from an Investigation into the true Causes of the Wealth of Nations, that our Riches, Prosperity, and Power, are derived from Sources inherent in Ourselves, and would not be affected, even though our Commerce were annihilated. 1807. 85 p. 3d ed., 1808. 96 p. 6 ed., 1808. The author was prominent as the leading agrarian Socialist. "Agriculture is the great source of national wealth, manufactures merely a transmutation of wealth of one description, into that of another." p. 20. He speaks of the "fallacy of the doctrine of the balance of trade," p. 49 saying "we derive no national wealth whatever, from our commerce." p. 59. "The author of these pages has long been satisfied, that the importance of our commerce has been greatly overrated; he has long indeed been convinced, that the wealth we derive from it is nothing; that the utility of by far the greater part of it, is to be resolved into its power of procuring for us certain luxuries, which we could do very well without, and in exchange for which we give much more valuable necessities; and consequently, that our riches, our greatness, and our happiness are independent of it." p. 10.

382. Mill, James, Commerce Defended: an Answer to the Arguments by which Mr. Spence, Mr. Cobbett, and others have attempted to prove that Commerce is not a source of National Wealth. 1808.

383. Spence, William, Agriculture the Source of the Wealth

of Britain; a reply to the objections urged by Mr. Mill, . . . against the doctrines of the pamphlet, entitled "Britain Independent of Commerce." 1808. 110 p.

384. Torrens, Robert, *The Economists Refuted; or, An inquiry into the nature and extent of the advantages derived from trade.* 1808. 84 p. The title of the second edition has added "with observations on the expediency of making peace with France, and an appendix, discussing the policy of prohibiting corn in the distilleries." 1808. 108 p. Refutes Spence. Examines the advantages derived from home, colonial, and foreign trade. Deprecates too great dependence upon foreign trade.

385. D'Ivernois, Sir Francis, *Effects of the Continental Blockade upon the Commerce and Prosperity of the British Islands.* Translated from the third French edition, revised, corrected and enlarged. To which are added, Observations on certain statements contained in "A View of the Natural and Commercial Circumstances of Ireland," by Thomas Newenham, Esq. . . . 1810. 152, xxiii p. Declares that British commerce has increased in spite of the Berlin and Milan Decrees. ✓

386. Chalmers, George, *Considerations on Commerce, Bullion and Coin, Circulation and Exchanges, with a view of our present circumstances,* 1811. 4, 238 p. 2 tables. The title of the third edition adds, "Third edition to which is prefixed, the State of the United Kingdom, at the Peace of Paris, 1815. . . . With Sir George Shuckburgh-Evelyn's Table of the Depreciation of Money and Prices of Necessaries of Life for 800 years." 2 parts. 1819-6.

387. *Considerations on the Danger and Impolicy of laying open the Trade with India and China; including an examination of the objections commonly urged against the East India Company's commercial and financial management.* 1812. 218 p. Defends company's monopoly and management.

388. *Correspondence and Proceedings in the Negotiation for a Renewal of the East India Company's Charter.* 1812. 92 p. Documents.

389. Phillimore, Joseph, *Reflections on the Nature and Extent of the License Trade*. 3d ed., 1812. xx, ii, 96 p. The orders in Council were a great mistake, but, once determined upon, they should at least have been enforced. The licenses issued to foreigners to disregard them work harm to Great Britain without corresponding advantage, and should at once be withdrawn. The author was Regius Professor of Jurisprudence at Oxford.

390. Phillimore, Joseph, A Letter addressed to a member of the House of Commons, on the subject of the notice given by Mr. Brougham, for a motion respecting the orders in council and the license trade. 1812. 2d ed., 67 p.

391. *Considerations on Colonial Policy, with relation to the renewal of the East India Company's charter*. By an impartial observer. 1813. 2d. ed., 1813.

392. Robertson, Alexander, *Reflexions on the present difficulties of the country, and on relieving them, by opening new markets to our commerce, and removing all injurious restrictions*. By an old Asiatic merchant. 1820. iv. 100 p. Considers probable Continental competition, possible new markets in the East, advocates abolition of the East India Company's monopoly of the China trade.

393. Heathfield, Richard, *Observations on Trade, considered in reference, particularly, to the public debt, and to the agriculture of the United Kingdom*. . . . 1822. 72 p. Effects on trade of American independence, the abolition of the slave trade, the high price of food-stuffs. The last is a serious handicap to commerce. Since it is due to the necessity of paying interest on the large public debt, liquidation of the debt is essential to prosperity.

394. Dupin, François Pierre Charles, baron. *Du commerce et de ses travaux publics, en Angleterre et en France, discours, prononcé le 2 juin 1823, dans le séance publique de l' Académie des Sciences*. Paris, 1823. 40 p. A general study by an observant Frenchman of the causes which have led to British prosperity and leadership in commerce.

395. Hibbert, N., Report of the select committee on foreign trade; with an abstract of the case of the West India Dock Company, as stated in evidence. 1823. viii, 101 p. Quotes the report and gives an abstract of the evidence with few comments of his own. The West India Docks had a monopoly of the reception of goods from the West Indies. The commission was appointed to consider the advisability of the renewal of the privilege.

§ 3. THE NAVIGATION LAWS

The development of Britain's shipping was the object of the Navigation Laws. From very early times, restrictions of this character had existed, but the rivalry of the Dutch was the direct cause of the most stringent and famous of the Navigation Acts, that of 1651, reenacted 1660. The provisions of these laws are easy of access, their principle was the restriction of the carrying trade to Great Britain or the country which produced the article imported. Not only must British ships be employed, but three fourths of the seamen in ocean traffic and all of the crew in coasting vessels must be British.

The Navigation Acts survived the shock of the loss of the American colonies, for which they were so largely responsible. But in the early nineteenth century, especially after the close of the long warfare, other countries threatened similar restrictions on British ships to those which their own suffered from England. Consequently a step in relaxation was taken, and acts passed in 1823 and 1828 permitted mutual agreements on a reciprocity basis.

No further definite action was taken until the period of the general free trade agitation centering about the struggle for the repeal of the Corn Laws. Then Ricardo wrote in protest against the Navigation Laws, and at his suggestion a Parliamentary Commission was appointed to inquire into and report upon the question. The inevitable output of pamphlets on both sides followed, but the repeal was carried in 1849.

Refer to sections on *Colonies, Shipping*.

396. Reeves, John, A History of the Law of Shipping and Navigation. 1792.

397. Holroyd, John Baker, Earl of Sheffield, Strictures on the Necessity of inviolably maintaining the Navigation and Colonial System of Great Britain. 1804. New edition, enlarged, 1806. xxiii, 318 p.

398. Cock, S., *An Answer to Lord Sheffield's Pamphlet, on the Subject of the Navigation System*; proving, that the Acts deviating therefrom, which his Lordship censures, were beneficial to our Trade and Navy, in the last War, and ought to be renewed in the present. 1804. 74 p. The use of neutral ships in place of British during the war was justified by necessity, and was of commercial advantage to Great Britain through enabling her trade to continue. Statistics of shipping. Permit trade between the United States and the West Indies.

399. *A Collection of Papers on Navigation and Trade.* Printed by order of the Society of Shipowners. 1807.

400. Medford, Macall, *Oil without Vinegar and Dignity without Pride; or, British, American, and West India Interests considered.* With a preface and additions. Together with a chart, shewing the rise and fall of the trade between the two countries. 1807. xvi, 110 p. 2d ed., 1807. Thinks the West India trade should be opened to the United States. A better book than the title would indicate.

401. *Inquiry into the Navigation Laws, and the Effects of their Alteration*; with tables of shipping and trade compiled from official documents. 1833. 107 p. Gives a history of the Navigation Laws, and protests against their repeal, free trade and reciprocity.

402. Ricardo, John Lewis, *The Anatomy of the Navigation Laws.* 1847. vii, 336 p. A thorough study of the subject, a history of the laws, a review of the evidence before the Select Committee on the Navigation Laws. Concludes that the laws are of no advantage to shipping and hinder commerce. Appendix gives acts regulating shipping as then in force.

403. *Mr. Ricardo's Anatomy of the Navigation Laws dissected.* By a Barrister. 1848. 206 p. Deals with Ricardo's work chapter by chapter, but his criticisms are not searching or fundamental, but chiefly efforts to trip the author in inconsistencies and to discredit the evidence offered.

404. Browne, J. H., *The Navigation Laws a National Question. A Brief Examination of Dr. Ricardo's "Anatomy of the Navigation Laws."* 1848.

405. Dibbs, Jeremiah, *Three Letters to Lord John Russell on the Navigation Laws.* 1848.

406. Hamilton, William, *The Navigation Laws as they affect the manning of the Navy, with suggestions for improving its discipline and the condition of its seamen.* 1848. 33 p. Few men change from the merchant marine to the Navy.

407. Harle, William Lockey, *The Total Repeal of the Navigation Laws, discussed and enforced in a Letter to Earl Grey.* London and Newcastle-upon-Tyne, 1848. 34 p. British shipping can stand without the support of the Navigation Acts, and will thrive better if it does. Danger of retaliation.

408. Young, George Frederick, *Letters on the Navigation Laws.* 1848. 41 p. Defends the laws, attacks the trade statistics quoted in support of their repeal.

✓ 409. Allen, Joseph, *The Navigation Laws of Great Britain, historically and practically considered, with reference to Commerce and National Defence.* 1849. xi, 344 p. Believes that repeal of the laws would end in irretrievable ruin. History of the laws, long quotations of evidence, a few observations by the author.

410. Northcote, Sir Stafford, Earl of Iddesleigh, *a Short Review of the History of the Navigation Laws of England,* . . . 1849. 2d ed., 1849.

411. Ogilvy, Thomas, *Statistical Evidence affecting the Question of the Navigation Laws.* Edinburgh and London. 1849. 18 p.

412. Lindsay, William Schaw, *Letters on the Navigation Laws (reprinted from the Morning Herald); addressed to Lord J. Russell, containing a review of the measure of Mr. Labouchere.* 1849.

§ 4. CUSTOMS

a. *General Works*

The work of the Customs Department in keeping account of goods imported and exported has been briefly described in the section covering general works on commerce. Aside from this, its varied functions consisted of registering vessels, measuring and recording the tonnage of ships, enforcing quarantine regulations, and performing other miscellaneous duties connected with the government regulation of commerce and navigation. The most picturesque phase of its activities was the repression of the smugglers, numerous, skilful, and emboldened by the premium placed upon smuggling by the prohibitive duties levied on goods.

The history of the Customs Department has been treated in thorough and scholarly fashion in some of the recent works. The account of import and export statistics is given in the introduction of the section on *Commerce, General and Historical Works*. Part II. § 1.

OFFICIAL PUBLICATIONS

413. Customs Tariffs of the United Kingdom from 1800 to 1897. With some notes upon the history of the more important branches of the receipt from the year 1660. 1897. Published in Parliamentary Papers, 1898, vol. LXXXV. xxxvi, 908 p. From 1823, the duties are given in full, previous to then, selections. A complete survey, consisting largely of tables, but including a history of the tariffs.

OTHER WORKS

414. Saxby, Henry, *The British Customs*: containing an historical and practical account of each branch of that revenue . . . 1757. xviii, 654 p. Detailed study of the actual system,

by an employe of the Custom-house. Gives rates, directions for passage of goods through the customs, drawbacks, bounties, ports, fees, an index of laws, containing abstracts of all in force.

415. Cunningham, Timothy, *The History of our Customs, Aids, Subsidies, National Debts, and Taxes. From William the Conqueror to the present year, MDCCLXI.* 1761. 85, 92, 166 p. 3d ed., 1778. Annals, giving history of taxes, acts, supplies voted. Several charts illustrating the financial condition of the government.

416. Baldwin, Samuel, *A Survey of the British Customs, containing the Rates of Merchandize . . . with tables of the net duties, drawbacks, bounties, &c. . . .* 1770. x, 228, 308, 39 p. Almost all tabular. Author an official.

417. Pope, Charles, *A Practical Abridgment of the Custom and Excise Laws, relative to the Import, Export, and Coasting Trade of Great Britain and her Dependencies, . . . duties, drawbacks, and bounties, . . . regulations of the several trading companies; . . . orders in council; treaties with foreign powers; . . .* 1812. 2d ed., 1814. xvi, 868 p. Thorough, detailed summary of commercial regulations.

418. Jickling, Nicholas, *A Digest of the Laws of the Customs; comprising a summary of the Statutes in force in Great Britain and its foreign dependencies, relating to shipping, navigation, revenue and other matters within the cognizance of the Officers of the Customs, from the earliest period to the 53 Geo. III. inclusive.* 1815. 1375 p. Standard, official compendium.

419. Frewin, Richard, *Digested Abridgment of the Laws of the Customs, imposing Prohibitions and Restrictions relative to the Importation and Exportation of Goods, Wares, and Merchandize into and from Great Britain.* 1819. xiv, 629 p. The author was assisted by N. Jickling, the authority on the subject.

420. Hume, James Deacon, *The Laws of the Customs. . . . Compiled . . . with notes . . . by James Deacon Hume. Supplements for 1826-32. 6 pt. 1825-32.* Hume's codification of the intricate laws was a masterpiece.

421. Hume, James Deacon, *The Law of the Customs*. . . . Supplements for 1834, 36. 3 pt. 1833-36. Revised to meet the changes in regulations.

422. *The Laws of the Customs*, compiled by direction of the Lords Commissioners of Her Majestys (sic) Treasury, and published under the sanction of the Commissioners of Her Majesty's Customs; . . . edited by J. G. Walford, Esq. 1846. xvi, 804 p. Based on Hume's similar work of 1836, revised to date.

423. Chester, W. D., *Chronicles of the Customs Department*. 1885. viii, 104 p. Illustrated. Anecdotal, designed to be an entertaining book, based on materials culled from the history of the customs service. The history is poor and meager.

424. Hall, Hubert, *A History of the Custom-Revenue in England*. From the earliest times to the year 1827. Compiled exclusively from original authorities. 1885. 2 v. A thorough historical work, treating the constitutional and fiscal aspects of the subject.

425. Atton, Henry, and Henry Hurst Holland, *The King's Customs. An Account of Maritime Revenue and Contraband Traffic in England, Scotland, and Ireland from the Earliest Times*. 1908, 1911. 2 v. Illustrated. Both authors officials. Work based on original sources, statutes and the books of the department. Interesting narrative, plus statistics. List of authorities at the close of each chapter. Vol. I closes with 1800, vol. 2, with 1855.

426. Chatterton, E. Keble, *King's Cutters and Smugglers, 1700-1855*. 1912. x, 425 p. Illustrated. Interesting as well as accurate account of smuggling, and the revenue service, its organization, equipment, incidents connected with it. A study from official sources, in the Library of the Custom House; minutes of the Board of Customs, letters to collectors and from them, notes of trials, instructions and orders.

b. Protection, the Corn Laws and the Free Trade Movement

Protection to agriculture was considered necessary since England's insular position rendered imported grain a precarious resource in time of war. In the early eighteenth century restrictions upon importation were hardly necessary, although they existed, since more than enough wheat for home consumption was generally produced. A stimulus to still further supplies was afforded by a bounty on all grain exported. With the increase of population at the close of the century and the consequent enlarged demand for foodstuffs, exportation ceased, and the restrictions upon importation became operative. A series of bad seasons made it essential even to permit importation duty free, to relieve widespread distress. From 1788 grain from abroad was regularly required to supplement the home supply. However, it was permitted to enter the country only when the price of wheat had reached a point fixed by law. The Corn Law of 1773 admitted foreign wheat at a nominal duty of 6 d. when the price was 48 s. per quarter in the home market. The Act of 1791 raised this minimum to 54 s., and later it reached even 80 s. Instead of absolute prohibition when prices were lower, much higher duties were charged with a view to keeping out foreign corn entirely. The sliding-scale of regulating duties by prices continued with modifications of rates until the repeal of the Corn Laws.

The policy exemplified in the case of agriculture by the Corn Laws, was extended also to practically all manufactured articles. Heavy duties were imposed on foreign products with the intention of excluding them from the English market. They were only partly successful, however, for smuggling was carried on on a large scale. The duties were a source of great expense and little revenue for the government, and were opposed by the landed interests.

The first step in reform was a codification of the maze of laws levying duties, offering bounties, or absolutely prohibiting importation. Then in 1824 and 1825 William Huskisson suc-

ceeded in reducing the duties on raw materials, silk, flax, wool, iron. His policy, interrupted by his sudden death, was to some extent obscured by the prominence of the Anti-Corn-Law agitation, but the principle underlying the two was the same, and progress continued until free trade was achieved in 1860.

The controversy over the Corn Laws lasted for well nigh a century. It became especially keen in 1814-1815, when the prospect of peace and the fear of great importations of grain led to a fight for increasing protection. The numerous pamphlets published by prominent economists at this time, resulted in the important contribution to economic theory, of the law of diminishing returns and the so-called Ricardian theory of rent.

The manufacturing interests, who desired cheap wheat in the hope that they might lessen wages if the cost of living were lowered, fought to accomplish their abolition. The landed interest, which considered itself the mainstay of the British nation, vigorously resisted. Every conceivable argument was offered, refuted, possibly modified, but desperately clung to, and endlessly repeated. The powerful Anti-Corn Law League was founded, sent lecturers all over the country and published papers, prize essays, and pamphlets. The landowners likewise were organized for the struggle. The controversy did not cease with the repeal of the Corn Laws in 1846, but continued, with greater or less prominence, until at the beginning of the new century a revival of the policy of protection became the subject of agitation and has since gained many adherents. Naturally only a small selection of the mass of literature bearing upon this subject can be included here, but no difficulty will be found in adding indefinitely to the list.

Refer to biographies and speeches of Huskisson, Cobden, and Bright, *Crises and Distress, Agriculture, Customs*.

PERIODICAL PUBLICATIONS

427. The League. 1843-5. The official organ of the Anti-Corn-Law League.

428. The Anti-Corn Law Circular. 1839. Published fort-

nightly, to work for free trade. Letters, speeches, etc. Cobden one of the contributors.

429. National Anti-Corn-Law League. Bazaar Gazette. 1845. A penny paper published daily during the holding of a bazaar in Manchester. Notes on the bazaar, verses, a few letters, etc.

OTHER WORKS

430. Massie, Joseph, Considerations on the Leather Trades of Great Britain; containing an account of the losses which the land as well as trading interests suffer by the exportation of un-manufactured British leather. . . . 1757.

431. Massie, Joseph, Reasons humbly offered against laying any farther British Duties on Wrought Silks of the Manufacture of Italy, the Kingdom of Naples and Sicily, or Holland. . . . 1758.

432. Considerations relative to a Bill under the Consideration of a Committee of the House of Commons, for taking off the duty on all raw silk of every denomination, that shall be imported into Great Britain. Humbly offered to the Right Hon. Charles Townsend. 1765. 38 p. Encourage trade and manufactures by allowing free import of raw materials.

433. Smith, Charles. Three Tracts on the Corn-Trade and Corn-Laws. 1760. 2d ed., 1766. iv, 235 p. Another edition 1804. A much quoted work. Lists the statutes on the subject from 1534. Many tables of prices, exports, imports, etc. Urges satisfaction with existing regulations.

434. Considerations on the Effects which the Bounties granted on Exported Corn, Malt, and Flour, have on the Manufactures of the Kingdom, and the true Interests of the State. With a postscript, containing remarks on a pamphlet lately published; intituled, Thoughts on the Causes and Consequences of the Present High Price of Provisions. 1768. vii, 103 p. Refutes, point by point, the arguments in favor of bounties. The value

of land is due to commerce. The prosperity and safety of the state are endangered to benefit one class.

435. Young, Arthur, *The Expediency of a Free Exportation of Corn at this Time: With some observations on the bounty, and its effects.* 1770. 42 p. 2d ed., 1770. 74 p. Defends the encouragement of exportation by a bounty, as tending to the general welfare of the nation through the support given to its most important industry.

436. Anderson, James, *An Inquiry into the Nature of the Corn-Laws, with a view to the new Corn Bill proposed for Scotland.* Edinburgh, 1777. 60 p. Desires to ascertain a medium price at which grain should be allowed to be imported.

437. Dalrymple, Sir John, *The Question considered, Whether wool should be allowed to be exported, when the price is low at home, on paying a duty to the public?* 1781. 25 p. 2d ed., 1782.

438. Forster, Nathaniel, *An Answer to Sir John Dalrymple's Pamphlet, Upon the Exportation of Wool.* Colchester, 1782. 46 p. To permit export would injure manufactures so seriously that the landed interest would be harmed.

439. *Plain Reasons addressed to the People of Great Britain against the intended petition to Parliament for leave to export wool.* Leeds, 1782.

440. Turnor, Edmund, *A Short View of the Proceedings of the several Committees and Meetings held in consequence of the intended Petition to Parliament from the County of Lincoln for a limited Exportation of Wool in the years 1781 and 1782, together with R. Glover's Letter on that Subject . . .* 1782. Reprinted in the *Pamphleteer*, vol. 23, 1813.

441. Holroyd, John Baker, Earl of Sheffield, *Observations on the Corn Bill, now depending in Parliament.* 1791. 3 editions. 83 p. Low prices of grain are not an advantage. Stimulate production and export of grain by corn laws, bounties, duties, pro-

hibition of import until a very high price has been reached. The resulting prosperity will benefit all classes.

442. (Corrie, Edgar), *Considerations on the Corn Laws, with Remarks on the Observations of Lord Sheffield on the Corn Bill*, . . . 1791. 72 p. 2 tables. Lord Sheffield's suggestions would so injure the English trade in carrying corn that English agriculture itself would suffer.

443. Peckham, Robert, *Considerations on the Advantage of Free Ports, under certain regulations, to the Navigation and Commerce of this Country*. 1791. ii, 22 p. 2d ed., 1793. vi, 30 p. 5th ed., 1795. Urges the opening of ports to goods, free, to be put in bonded warehouses until sold or re-exported.

444. Sinclair, *Sir* John, *Address to the Landed Interest, on the Corn Bill now depending in Parliament*. 1791. 40 p. Favors imposition of corn duties to render Great Britain self-sufficing.

445. Dirom, Alexander, *An Inquiry into the Corn Laws and Corn Trade of Great Britain, and their Influence on the Prosperity of the Kingdom. With Suggestions for the Improvement of the Corn Laws*. Edinburgh, 1796. xi, 262, 54 p. History of Corn Laws. Largely facts, little argument. Approves laws as preventing dependence upon foreign countries, but proposes improved laws. Statistical appendix.

446. *On the Necessity of Altering the Regulations recommended to Parliament for reducing the high price of Corn*. 1796.

447. Howlett, John, *Dispersion of Gloomy Apprehensions with respect to the Decline of the Corn Trade*. 1797.

448. Burke, Edmund, *Thoughts and Details on Scarcity*, . . . 1800. See under *Crises*.

449. Turton, *Sir* Thomas, *An Address to the Good Sense and Candour of the People in Behalf of the Dealers in Corn, with Observations on a late Trial for Regrating*. 1800.

450. Anderson, James, *A Calm Investigation of the Circumstances that have led to the present scarcity of Grain in Great Britain: Suggesting the Means of Alleviating that Evil, and of preventing the Recurrence of such a Calamity in Future.* 1801. 94 p. Urges more intensive cultivation, attacks importers of grain, wants revised corn laws to prevent importation and encourage exportation.

451. Attwood, G., *Review of the Statutes and Ordinances of Assize, which have been established in England from 1202 to the thirty-seventh year of his present Majesty George III.* 1801.

452. Maitland, James, Earl of Lauderdale, *A Letter on the Corn Laws.* 1814. iii, 89 p. Bounty on exports should be restored, and high duty laid on imports. No objection to complete free trade but there should be no discrimination against agriculture while other branches are protected.

453. Malthus, Thomas Robert, *Observations on the Effects of the Corn Laws, and of a Rise or Fall in the Price of Corn on the Agriculture and General Wealth of the Country.* 1814. 44 p. 3d ed., 1815. After trying to weigh impartially the advantages and disadvantages of free trade in corn, thinks delay in action desirable, or enact a constant duty on corn as a protective measure and continue old bounty for a time.

454. Hume, James Deacon, *Thoughts on the Corn-Laws, as connected with Agriculture, Commerce, and Finance.* 1815. 80 p. Opposes sliding-scale of duties, but considers protection necessary.

455. Malthus, Thomas Robert, *The Grounds of an Opinion on the Policy of Restricting the Importation of Foreign Corn.* Intended as an Appendix to the "Observations on the Corn Laws." 1815. The capital already sunk in agriculture could not stand the shock of the total repeal of the Corn Laws.

456. Newnham, George Lewes, *A Review of the Evidence before the Committee of the Two Houses of Parliament, on the Corn Laws.* 1815.

457. Remarks on the Commercial Policy of Great Britain, principally in its relation to the Corn Trade. 1815.

458. Ricardo, David, An Essay on the Influence of a Low Price of Corn on the Profits of Stock, . . . with Remarks on Mr. Malthus's Last Two Publications. . . . 1815. 50 p. A discussion based on Ricardo's theory of rent. Free trade.

459. Holroyd, John Baker, Earl Sheffield, A Letter on the Corn Laws, and on the Means of Obviating the Mischiefs and Distress, which are rapidly increasing. 1815. 44 p. The change of policy after 1765 is responsible for the fluctuation of prices which is the real source of distress. Remedy, a high duty to prevent importation.

460. Spence, William, The Objections against the Corn Bill refuted; and the Necessity of the Measure, to the Vital Interests of every Class of the Community demonstrated. 1815. 5th ed., 1815. 43 p.

461. Torrens, Robert, An Essay on the External Corn Trade; containing an inquiry into the general principles of that important branch of traffic; an examination of the exceptions to which these principles are liable; and a comparative statement of the effects which restrictions on importation and free intercourse are calculated to produce upon subsistence, agriculture, commerce, and revenue. 1815. 2d ed., 1820. xxvi, 442 p. 3d ed., 1826. New ed., 1829, contains an Appendix on Means of Improving the Condition of the Labouring Classes. 27 p. Elaborate essay in economic theory, advocating free trade. To avoid individual hardship the change should be gradual. Based on the idea of the law of diminishing returns.

462. West, Sir Edward, Essay on the Application of Capital to Land; with observations showing the impolicy of any great restriction of the importation of corn, and that the bounty of 1688 did not lower the price of it. 1815. Favored protection, but opposed too high a protective price. Enunciates the Ricardian theory of rent, before Ricardo and Malthus.

463. Maitland, John, Observations on the Impolicy of permitting the Exportation of British Wool, and of preventing the Free Importation of Foreign Wool. 1818. vii, 60 p. "a single lock of native wool should never be permitted to quit the island in a raw state." p. 8.

464. Parry, Charles Henry, The Question of the Existing Corn Laws, Considered: Their Relation to the Agricultural Labourer, the Tenantry, the Landholder, and the Country. Bath, 1816.

465. Ricardo, David, On Protection to Agriculture. 1822. 95 p. Corn Laws, by causing fluctuations in prices, responsible for much of the distress. Low prices for corn attributed partly to alteration in the value of currency, partly excess of supply over demand.

466. Stourton, Lord, Three Letters to the Right Honourable the Earl of Liverpool, on the Distresses of Agriculture in the United Kingdom: in which the influence of these distresses on our Manufactures, Trade, and Commerce, is considered, as well as the justice, policy, and necessity, of legislative relief. With observations on Cash Payments and a Free Trade. 1822. 438, xx p. Details at length the heavy burden on the land-owner.

467. Huskisson, William, Substance of two speeches, delivered in the House of Commons, on the 21st and 25th of March, 1825 . . . respecting the colonial policy, and foreign commerce of the country. 1825. 88 p. There are beneficial results to English manufactures from the reduction of duties, fees, and other restrictions. Urges that further steps be taken.

468. Chesterfield, Philip Dorner, Earl Stanhope, A Letter from Earl Stanhope on the Corn Laws. 1826. 46 p. Defense of the Corn Laws.

469. Graham, Sir James Robert George, Corn and Currency; in an Address to the Land Owners. 1826. 114 p. 2d ed., 1828. Calls on land-owners to unite, to admit the overthrow of monopoly, but ask for a protective duty and open ports, also a repeal of the currency bill of 1819.

470. Jacob, William, Report on the Trade in Foreign Corn, and on the Agriculture of the North of Europe. To which is added an Appendix of Official Documents, Averages of Prices, Shipments, Stocks on Hand in Various Exporting Countries, &c. &c. 1826. 3d ed., 1826. 249 p. An authority to whom constant reference was made.

471. McDonnell, Alexander, Free Trade; or An Inquiry into the Expediency of the Present Corn Laws; the Relations of our Foreign and Colonial Trade; the Advantages of our Navigation System; the Propriety of Preventing Combinations among Workmen; and the Circumstances which occasion a derangement of the Currency. Comprising a General Investigation of the Alterations lately adopted, and still farther meditated, in the Colonial Policy of the Country. 1826. xv, 468 p. Precedent, sacred institutions!

472. Thornton, Henry, A Compendium of the Laws, passed from Time to Time, for regulating and restricting the Importation, Exportation, and Consumption of Foreign Corn, from the Year 1660, and a Series of Accounts from the Date of the Earliest Official Records; shewing the operation of the several Statutes, and the Average Prices of Corn: presenting a complete view of the Corn Trade of Great Britain. Compiled from Public Documents. 1826. 59 p.

473. West, Sir Edward, Price of Corn and Wages of Labour, with observations on Dr. Smith's, Mr. Ricardo's, and Mr. Malthus's Doctrines upon those Subjects; and an attempt at an Exposition of the Causes of the Fluctuation of the Price of Corn during the Last Thirty Years. 1826.

474. Whitmore, William Wolryche, A Letter to the Electors of Bridgenorth, upon the Corn Laws. 1826. 84 p. Temperate. A gradual approach to free trade is desirable.

475. Bramston, Thomas Gardiner, The Principle of the Corn Laws vindicated. 1827. 93 p. Danger to manufacturers if the agricultural classes are unable to buy British goods.

476. The High Price of Bread shown to be the Result of Commercial Prosperity, not a Cause of National Distress; and the Dangers of a Free Trade in Corn pointed out. By a Warning Voice. 1827. 201 p.

477. Thompson, Thomas Perronet, Catechism on the Corn Laws; with a list of Fallacies and the Answers. 1827. Numerous other editions, full, enlarged, and abridged. Highly popular answers to arguments in favor of the Corn Laws. Author, President of the Board of Trade.

478. Thoughts on the Policy of the Proposed Alterations of the Corn Laws. 1827. 61 p. Dwells on the political importance of the agricultural class. Holds up Poland as a terrifying example of what British agriculture will sink to, if not protected.

479. Jacob, William, Tracts relating to the Corn Trade and the Corn Laws: including the Second Report ordered to be printed by the Two Houses of Parliament. 1828. vii, 293 p. Descriptive of conditions of foreign agriculture and commerce in grain. Compare his earlier report.

480. Macdonnell, Alexander, Colonial Commerce; comprising an Inquiry into the Principles upon which discriminating duties should be levied on Sugar, the growth respectively of the West India British Possessions, of the East Indies, and of Foreign Countries. 1828. xix, 302 p. The advantages of colonies, the effects of the Navigation Acts and of the colonial policy are considered. A duty should be levied on sugar produced in the East Indies to help the West Indies in competition with the eastern product.

481. Observations upon the Importation of Foreign Corn: with the Resolutions moved by Lord Redesdale in the House of Lords, March 29, 1827; and his Speech thereupon, May 15, 1827; (with some notice of observations then made on those resolutions;) . . . 1828. 137 p. Free import of foreign corn will ruin English agriculture.

482. McCulloch, J. M., *Observations on the Duty on Seaborne Coal; and on peculiar Duties and Charges on Coal, in the Port of London. Founded on the Reports of Parliamentary Committees, and other Official Documents.* 1830. 51 p. Exposes the unfairness of the duty, preference and fraud.

483. Elliot, Ebenezer, *Corn Law Rhymes*; printed by order of the Sheffield Mechanics' Anti-Bread-Tax Society. 2d ed., Sheffield, 1831. 28 p. Popular verses against the Corn Laws.

484. Carlyle, Thomas, *Corn Law Rhymes.* 1832. In *Edinburgh Review*, vol. iv.

485. Fitzwilliam, Earl (Viscount Milton), *Address to the Landowners of England, on the Corn Laws.* 2d ed. 4th ed., 1832. 46 p. Object "to induce . . . landowners to consent to the abolition of a system, which condemns them and their countrymen to a qualified scarcity of the first necessary of life." High prices of corn check increase of population, thus limit the market for produce.

486. Hall, George Webb, *Letter to the Right Hon. Viscount Milton; being a Review of the Various Sources of National Wealth, and a Reply to the Recent Publication of his Lordship against the Corn Laws.* 1832. 56 p. Agriculture must flourish for manufactures to succeed.

487. Barton, John, *An Inquiry into the Expediency of the Existing Restrictions on the Importation of Foreign Corn; with Observations on the Present Social and Political Prospects of Great Britain.* 1833. xv, 128 p. Opposes repeal. Includes an interesting statistical study of the relation between the price of corn and the rate of mortality, trying to show that low prices coincided with high mortality. Believes that there is a redundancy of population and capital.

488. Mundell, Alexander, *Operation of the Corn Laws during the last Sixty Years.* 1833.

489. Monck, Charles Atticus, *An Address to the Agricul-*

tural Classes of Great Britain on the Evils which are the Consequence of Restricting the Importation of Foreign Corn. 1833. ii, 60 p. Hypothetical calculations to prove that even the landlord is injured by the Corn Laws.

490. (Hume, James Deacon,) H. B. T., Letters on the Corn Laws and on the Rights of the Working Classes . . . 1835. 48 p. 2d ed., 1835. Published as a series of letters in the *Morning Chronicle* in 1834. Protection for agriculture places an unfair burden upon the working classes, through the high prices of food.

491. Wilson, James, The Influences of the Corn Laws as affecting all Classes of the Community, and Particularly the Landed Interests. 1839. 3d ed., 1840. Considers their influence very harmful.

492. Holland, George Calvert, An Exposition of Corn-Law repealing Fallacies and Inconsistencies. 1840. xiv, 204 p. Lengthy criticism of the arguments of James Wilson and Earl Fitzwilliam, with brief introductory comments on the arguments of a number of other writers.

493. Jevons, Thomas, The Prosperity of the Landholders not dependent on the Corn Laws. 1840. 68 p.

494. Pennington, James, A Letter to Kirkman Finlay, Esq., on the Importation of Foreign Corn, and the Value of the Precious Metals in Different Countries. To which are added Observations on Money, and the Foreign Exchange. 1840. 114 p.

495. Thompson, Thomas Perronet, Letters of a Representative to his Constituents, during the Session of 1836. To which is added A Running Commentary on Anti-Commercial Fallacies . . . 1836. ii, 208 p. Reprint of letters published usually twice a week in local newspapers. Free trade prominent.

496. Senior's Letters on the Corn Laws. A New Edition. By a Member of the Temple. 1839. 47 p. Signed "A. Senior." Wants farmers to cease sowing for a time, since a reduction of supply is the only adequate relief measure.

497. Porter, George Richardson, *The Effect of Restrictions on the Importation of Corn considered with Reference to the Landowners, Farmers, and Labourers.* 1839.

498. *Corn Laws: An Authentic Report of the Late Important Discussions in the Manchester Chamber of Commerce on the Destructive Effects of the Corn Laws upon the Trade and Manufactures of this Country.* 1839.

499. Wilson, James, *Fluctuations of Currency, Commerce and Manufactures, referable to Corn Laws.* 1840.

500. F. C., *An Essay on Free Trade: Its Absolute Value in Theory, its Relative Value in Practice, Error and Consequences of its Application to the Corn Laws.* 1841. 155 p.

501. Greg, Robert Hyde, *A Letter to the Right Hon. Henry Labouchere on the Pressure of the Corn Laws and Sliding Scale more especially upon the Manufacturing Interests and Productive Classes.* 1841. 31 p. The "tendency of a monopoly in the land is to draw continually to itself a larger and larger portion of the industry of every other class."

502. *The Letters of Diogenes, to Sir Robert Peel, Bart.* 1841. xv, 110 p. Urges abolition of all corn laws, or, at least the substitution of a small fixed duty.

503. McCulloch, John Ramsay, *Statements illustrative of the Policy and Probable Consequences of the Proposed Repeal of the Existing Corn Laws, and the Imposition in their stead of a moderate fixed duty on foreign corn when entered for consumption.* 1841. 38 p. "The vice of the system is that it has nothing certain or definite about it; no one can ever predict what the state of the corn trade may be six months hence."

504. *A Plea for the Total and Immediate Repeal of the Corn Laws: with a table of the land-rental of 100 parishes of Scotland, in 1791-96, and in 1832-41; and the official rental of 72 parishes in 1650.* 3d ed. enlarged. 1841. 55 p. *Anti-Corn Law Tract No. 1.*

505. (Porter, G. R.), *The Many sacrificed to the Few; proved by the effects of the Food Monopoly.* 1841. 18 p. Burden very hard on the labouring class since wages tend to rise with the cost of subsistence only in the long run.

506. *Report of the Conference of Ministers of all Denominations on the Corn Laws, held in Manchester, August 17th, 18th, 19th, and 20th, 1841. With a Digest of the Documents contributed during the Conference.* Manchester, 1841. 264 p. Reports of sessions, correspondence, and evidence on conditions in districts represented. 645 ministers present, including several Roman Catholics, but very few of the Established Church.

507. Thornton, Henry, *Historical Summary of the Corn Laws, containing the Substance of the Statutes passed from the year 1660, for regulating the importation and consumption of foreign, and the exportation of British corn . . .* 1841. iv, 56 p. Chronological summary of the laws, with tables illustrating prices, duties, etc.

508. Hubbard, John Gellibrand, *Vindication of a fixed duty on Corn; to which are added Remarks suggested by the Speech of R. A. Christopher, Esq., M.P., at Lincoln.* 1842. 48 p.

509. *The Report of the Statistical Committee appointed by the Anti-Corn Law Conference held in London on the 8th, 9th, 10th, 11th, and 12th of March, 1842.* 49 p. Reports on wages, employment, food, poor rates, depreciation of capital, etc., in woolen, cotton, hosiery, and other trades.

510. Nicholls, Robert H., *The Bread Tax Considered: A Refutation of the Arguments of M'Culloch, Hubbard, and Baptist Noel, proving that a low fixed duty would be destructive to Agriculture.* 1842. 23 p.

511. Harwood, Philip, *Six Lectures on the Corn-Law monopoly and Free Trade: delivered at the London Mechanics' Institution . . .* 1843. 123 p. Popular appeal.

512. Welford, Richard Griffiths, *How will Free Trade in Corn affect the Farmer? Being an Examination of the Effects*

of Corn Laws upon British Agriculture. 1843. viii, 202 p. Historical treatment. Free trade in corn advised, although the author was a member of the Royal Agricultural Society.

513. Alison, Archibald, Free Trade and Protection. Being a Tract on the Necessity of Agricultural Protection. Edinburgh and London, 1844. England must raise enough grain to support her population.

514. Cayley, E. S., Reasons for the Formation of the Agricultural Protection Society, addressed to the Industrious Classes of the United Kingdom. 1844. Opposes the repeal of the Corn Laws.

515. Morton, John, and Joshua Trimmer, An Attempt to estimate the Effects of Protecting Duties on the Profits of Agriculture. 4th ed., 1845. 86 p. Believes that the abolition of protection would be beneficial to the farmer. Elaborate calculations for various staple products.

516. A Familiar Treatise on Taxation, Free Trade, etc., comprising facts usually unnoticed or unconsidered in theories of those subjects. With notes on subjects arising incidentally, 1846. ii, 324 p. General treatise on taxation, sources, incidence, effects on social conditions, applied in criticism of system supplanting the corn laws.

517. Portielje, D. A., and S. Vissering Geschiednis der Tariefshervorming in England. Amsterdam, 1847. xvi, 303 p. A short history of trade to the beginning of the nineteenth century, a survey of conditions then, and the story of the Free Trade Movement.

518. Martin, Robert Montgomery, The Sugar Question in Relation to Free Trade and Protection. 1848. 21 p.

519. Brown, Thomas James, Statistical Survey of the Corn Trade from 1697 to 1851 inclusive. 1851.

520. Byles, John Barnard, Sophisms of Free-Trade and Popular Political Economy Examined. 8th ed. revised, 1851. xxviii, 384 p.

521. Lytton, Sir Edward Bulwer, *Letters to John Bull, Esq., on Affairs connected with his landed property, and the persons who live thereon.* 11th ed., 1851. 45 p. Pleads for a moderate fixed duty.

522. Somerville, Alexander, *The Whistler at the Plough; containing travels, statistics, and descriptions of scenery & agricultural customs in most parts of England; with letters from Ireland; also "Free Trade and the League;" a Biographic History.* Manchester, 1852. iv, 632 p. Includes a selection of letters written against protection between 1842 and 1847. Large number of anecdotes.

523. Richelot, Henri Ange Jules Francois, *Histoire de la réforme commerciale en Angleterre. Avec des annexes étendues sur la législation de douâne et de navigation dans le même pays.* Paris, 1853-5. 2 v. An elaborate historical study of the change to free trade policy. Full appendices include many statistical tables. Uses as sources the Parliamentary Papers, controversial literature, and standard works on commerce.

524. Prentice, Archibald, *History of the Anti-Corn-Law League.* 1853. 2 v. Detailed story of the movement by one who took active part in it. Quotations from speeches, newspapers, letters, etc. Poorly organized.

525. Somerville, Alexander, *Free Trade and the League; a biographic history of the pioneers of freedom of opinion, commercial enterprise, and civilisation, in Britain, from the times of serfdom to the age of free trade in manufactures, food, and navigation.* Manchester, 1853. 2 v. Much useless digression.

526. Bright, Henry S., *Statistics of the Corn Trade, 1828 to 1853.* 1854.

527. Dunkley, Henry, *The Charter of the Nations; or, Free Trade and its Results: an Essay on the Recent Commercial Policy of the United Kingdom, . . .* 1854. xix, 454 p. Brief history of the movement, social, political and religious consequences, possible further reforms.

528. Bastiat, Frederic, *Cobden et la Ligue, ou l'agitation anglaise pour la liberté des échanges*. 3d ed., 1864. 521 p. Consists almost entirely of long translations of speeches by Cobden and others.

529. Ashworth, Henry, *Recollections of Richard Cobden, M.P., and the Anti-Corn-Law League*. 1876. xxxix, 392, 31 p. Author prominent in the work, for repeal. Largely personal but expanded to give a more complete account. Interesting record of methods of propaganda. Quotations from circulars, etc.

530. Fawcett, Henry, *Free Trade and Protection. An Inquiry into the Causes which have retarded the general adoption of free trade since its introduction into England*. 1878. xvi, 173 p. Well-known work, contains only one chapter on the period before 1850.

531. Mongredien, Augustus, *History of the Free-trade Movement in England*. 1881. viii, 188 p. Useful, popular short history. Seeks to show the advantages accruing from free trade.

532. Bisset, Andrew, *Notes on the Anti-Corn Law Struggle*. 1884. Largely anecdotes by a worker for repeal.

533. Villiers, Charles Pelham, *The Free Trade Speeches of the Right Hon. Charles Pelham Villiers, M.P., with a Political Memoir*. Edited by a member of the Cobden Club. 1884. Thirty speeches by the earliest prominent and most persevering advocate of total repeal of the Corn Laws.

534. Farrer, Sir Thomas Henry, *Free Trade versus Fair Trade*. 1885. xvi, 276 p. A well-known book advocating free trade, but what history it contains is mainly after 1850.

535. Gill, Richard, *Free Trade. An Inquiry into the Nature of its Operation*. 1887. viii, 346 p. Gives a history of the free trade movement and its consequences to support the view that free trade was responsible for the existing distress.

536. Brentano, Lujo, *Anfang und Ende der englischen Kornzölle*. 1892.

537. Williamson, A., *British Industries and Foreign Competition*. 1894. xii, 311 p. History of the corn laws, together with an examination of the effects of free trade on agriculture and various industries. Conclusion in favor of protection. Statistical appendices.

538. *Richard Cobden and the Jubilee of Free Trade*. By Henry Dunckley, Paul Leroy-Beaulieu, Theodor Barth, Leonard Courtney, and Charles Pelham Villiers. With Introduction by Richard Gowing. 1896. A group of essays, chiefly an interpretation of the movement and of Cobden's Work.

539. Naudé, Wilhelm, *Die Getreidehandelspolitik der Europäischen Staaten vom 13. bis zum 18. Jahrhundert, als Einleitung in die Preussische Getreidehandelspolitik*. Berlin, 1896. *Acta Borussica*. xvi, 443 p. No detailed treatment of any one country, but useful survey of the whole field.

540. Armitage-Smith, George, *The Free-trade Movement and its Results*. 1898. 244 p. Valuable short history, beginning with the Phoenician restrictions on trade. Chapters V-XII, on economic arguments and results. Author favors free trade but endeavors to explain fairly the recent revulsion from that policy.

541. Ashley, William James, *The Tariff Problem*. 1903. 2d edition with an additional chapter, 1904. viii, 269 p. After an introduction including a historical survey of the tariff and of the policy of free imports, the author passes to a consideration of English trade conditions relative to those of the rest of the world. Considers a colonial preferential system the only hope for the British Empire.

542. Gaskell, Thomas Penn, *Free Trade a Failure from the First*. 1903. x, 91 p. A study, largely statistical of the period preceding and succeeding the repeal of the Corn Laws. Tables, diagrams, charts. Urges immediate imposition of duties.

543. Cunningham, William, *The Rise and Decline of the Free Trade Movement*. 1904. x, 168 p. Pitt, Huskisson, Peel,

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Cobden, Imperial System. A dispassionate historical study, dealing with each problem as one solved according to the peculiar needs of the time.

544. Nicholson, James Shield, History of the English Corn Laws. 1904. viii, 188 p. Small but scientific work, little injured by the author's free trade bias. The origin and history of the corn laws from the point of view of the interest of the consumer, the producer, and the nation at large.

545. Smart, William, The Return to Protection. 1904. x, 284 p. Very able and lucid presentation of the principles of international trade in connection with taxation. Favors free trade. Little history.

546. Robertson, John M., Trade and Tariffs. 1908. ix, 331 p. Strong free trade bias. Many quotations from sources to show distress under protection, the success of free trade and the modern failure of protection.

547. Hillier, Alfred P., The Commonweal. A study of the Federal System of Political Economy. 1909. xii, 162 p. Theoretical and historical discussion by an advocate of protection through an imperial preferential system. Insists upon the displacement of labor and the difficulty of readjustment consequent upon the decay of unprotected industries.

548. Molesworth, Sir Guilford, Economic and Fiscal Facts and Fallacies. 1909. xii, 292 p. Forty-seven short chapters on one aspect or another of the tariff question by an opponent of free trade. Historical illustrations interspersed with the arguments.

549. Gras, Norman Scott Brien, The Evolution of the English Corn Market from the Twelfth to the Eighteenth Century. Cambridge, Mass., 1915. xiii, 498, p. Map, tables. Long bibliography. Harvard dissertation. Extended use of manuscript and printed sources. Slight on this period, but valuable for background.

PART III
MEANS OF COMMUNICATION

§ 1. GENERAL WORKS

Coincident with the progress in mechanical processes applied to production occurred equally significant improvements in the means of distributing the increased volume of products. Isolation, unchanging absorption in the near and the familiar, characterized English life outside of the metropolis until the era of good roads and, later and more important, railroads. What this isolation signified in the social and mental life of the majority of Englishmen may probably best be realized from a study of the literary works of the eighteenth or early nineteenth century. Below are listed a few books which aim to interpret from an economic or political standpoint the meaning of the changes in methods of communication connected with the Industrial Revolution, or which place their story in the general history of transportation.

550. The Roads and Railroads, Vehicles, and Modes of Travelling, of Ancient and Modern Countries: with accounts of bridges, tunnels, and canals, in various parts of the world. 1839. 340 p.

551. Teisserenc, Edmond, De la Politique des chemins de fer et des es applications diverses. Paris, 1842. vi, 584 p. Provides comparison of England with the Continent in connection with management, relation of railways to canals, posts, etc.

552. Sax, Emil, Die Verkehrsmittel in Volks- und Staatswirtschaft. Vienna, 2 v. 1878-9. Vol. I, Allgemeiner Theil, Land- und Wasserwege, Post und Telegraph. Vol. II, Die Eisenbahnen. Scholarly economic study, with one historical chapter on each topic.

553. Foville, Alfred de, La transformation des moyens de transport et ses conséquences économiques et sociales. Paris, 1880. xxiii, 460 p. Largely a collection of figures and facts, illus-

trating such varied topics as speed, cost, security, post, telegraph, prices, agriculture, industry, commerce, the budget, population, art, literature, education, as affected by transportation changes.

554. Götz, Wilhelm, *Die Verkehrswege im Dienste des Welt-handels*. Stuttgart, 1888. Covers 3000 B. C. to 1887. Little on England in this period but good sweeping survey.

555. Colson, Léon Clément, *Transports et Tarifs*. Paris, 1890. 479 p. 2d ed., 1898. Economic and legal study of administration, finance, rates, competition, etc., roads, canals, ports, railroads. Chiefly France and later dates, but comparisons with England.

556. Campredon, E., *Rôle économique et sociale des voies de communication*. Paris, 1899. 515 p.

557. Cohn, Gustav, *Zur Geschichte und Politik des Verkehrswesens*. Stuttgart, 1900. 524 p. Somewhat disconnected series of essays on topics related to transportation, as state ownership. History subordinate.

558. Uzanne, Octave, *La locomotion à travers l'histoire et les mœurs*. Paris, 1900. 281 p.

559. Willson, Beckles, *The Story of Rapid Transit*. New York, 1903. 204 p. Illus. Popular. Mail-coach to motor-cars.

560. Borght, Richard van der, *Das Verkehrswesen*. Leipzig, 1912 (2d ed.). xi, 650 p. Very full bibliography. Chiefly an economic study of roads, canals, railroads, post, telegraph, in all countries. Short history.

561. Pratt, Edwin A., *A History of Inland Transportation and Communication in England*. 1912. Bibliography. xii, 532 p. Admirable, comprehensive. Author an authority, who gives here a well-proportioned, interesting History from the earliest British roads to trams, tubes and automobiles.

562. Kirkaldy, Adam Willis, and Alfred Dudley Evans. *The History and Economics of Transport*. 1915. ix, 338 p. Bibliography. Standard text-book dealing with the whole field of transportation problems both historically and as economic questions.

§ 2. ROADS

The exact condition of the roads of England under the old regime has been a matter of controversy among historians. All agree that many were extremely bad. That there was considerable difference in different localities was inevitable for the local authorities alone were responsible for their upkeep, and officials were frequently neglectful. Further, the labor used was largely the unpaid, compulsory service of the members of the parish for six days a year. The usual method of repairing a road was to scrape the surface. As roads were often below the level of the adjoining fields, this process resulted in making very good drains in wet weather, but the deep mud at the bottom was hardly fit for travelling. Even the main highways were so poor that they caused serious delays and frequent accidents to persons who dared trust themselves to vehicles rather than to travelling on horse-back.

The soft road, if not too sodden, served the horse better than a harder pavement would have done, and the custom of driving live-stock to London to market from all over the Kingdom made a good roadbed undesirable and impossible. With the advent of carts instead of packhorses in the seventeenth century, and later the introduction of carriages and coaches, improvements became essential. Since the local authorities were often unwilling to stand the expense of rebuilding roads which were frequently but little used by themselves, the work was ordinarily undertaken by private Turnpike companies, which received the right of charging toll in return for maintaining the road. The travel which resulted from the commercial progress of the early eighteenth century enabled these companies to pay such large dividends that they became a favorite form of investment, as is evidenced by the large number of Turnpike Acts passed by Parliament after 1750.

Yet all during the eighteenth century there were complaints. The turnpike companies were so numerous that each controlled but a small mileage of road. No general policy could be agreed upon, and many sections were neglected entirely but for the collection of tolls.

Great improvement was made in the early nineteenth century by a group of engineers of whom Telford and McAdam were most prominent. They devised a new system of road building, based upon a method for securing proper drainage. They disproved the old fallacy that the only way by which this could be secured was by means of a roadbed with a high crown that could be built only by the expensive construction of an actual arch. McAdam's experiment near Bristol was considered conclusive proof of the advantages of the new system. He simply formed a roadway of the required shape from large stones, and covered the surface with small rough stones, which were soon ground into a smooth pavement by the wheels of passing vehicles.

Public interest was so thoroughly aroused after stage-coaches became popular, that Parliamentary committees made elaborate investigations of the state of the roads, the best forms of wheels, proper weights to be carried in wagons, etc., with a view to regulating traffic. Many wild schemes were vigorously advocated in pamphlets by their proud inventors. The list of patents indicates wide-spread interest, and the reports of professional road-builders show a growing appreciation of scientific principles. The literature of the subject continued to be produced in considerable volume, until the turnpikes lost their importance because of the competition of canals and railways.

BIBLIOGRAPHY

563. Ballen, Dorothy, *Bibliography of Road-making and Roads in the United Kingdom*. With an introduction by Sir George Gibb, Chairman of the Road Board. 1914. xviii, 281 p. One of the Studies in Economics and Political Science of the London School of Economics. A lengthy list of books, pamphlets, articles in periodicals, government reports, acts of Parliament, etc. Greatly

enlarged from the bibliography of the subject prepared by Mr. and Mrs. Sidney Webb, in 1906.

OFFICIAL PUBLICATION

564. Patents for Inventions. Abridgments of Specifications relating to Roads and Ways. A. D. 1619-1866. Printed by order of the Commissioners of Patents. 1868. xiv, 277 p. Prepared by Bennet Woodcroft. Includes references to magazines where a fuller account of the invention is given.

OTHER WORKS

565. New and Accurate Description of the present Great Roads and the Principal Cross Roads of Great Britain. 1756.

566. Hawkins, Sir John, Observations on the State of the Highways and on the Laws for amending and keeping them in repair. With a draught of a bill for . . . reducing into one act . . . the most essential parts of all the statutes in force relating to the highways . . . 1763.

567. Homer, Henry, An Enquiry into the means of preserving and improving the Publick Roads of this Kingdom . . . Oxford, 1767. 87 p. Laws, history, construction, avoidance of grades, and curves, materials, injurious influences.

568. Paterson, Daniel, A New and Accurate Description of all the Direct and Principal Cross Roads in England and Wales. 1771. 18th ed., 1829, 715, 44 p. Maps. Guide-book, with distances. "On the left is . . ."

569. Bayley, Thomas Butterworth, Observations on the General Highway and Turnpike Acts. 1773.

570. Edgeworth, Richard Lovell, An Essay for the Construction of Roads on Mechanical and Physical Principles. 1774 48 p.

571. Scott, John, Digest of the General Highway and Turnpike Laws. 1778. "This old law book, compiled by 'the Quaker

poet' of Amwell . . . who was an able and zealous justice of the peace for Hertfordshire, contains many shrewd and humorous observations, and throws considerable light on contemporary local administration. With its appendix on the construction and preservation of public roads, it forms a work of no little merit, which was at that time, as his biographer observes, 'probably the only scientific treatise on the subject.' " Webb, *King's Highway*, p. 445.

572. Owen, William, *Owen's New Book of Roads; or, a Description of the Roads of Great Britain*. 1782. Other editions, until 1840 (1805-8-27). Descriptions of the roads and points of interest along them.

573. McAdam, John Loudon, *Remarks on the Present System of Road Making; with observations, deduced from practice and experience, with a view to a revision of the existing laws, and the introduction of improvement in the method of making, repairing, and preserving roads*, . . . Bristol, 1816. 32 p. 9th ed., 1827. Short description of methods, states the need of more competent supervision.

574. Cobbett, William, Jr., *The Law of Turnpikes; or, an . . . arrangement of, . . . commentaries on, . . . the acts relative to the turnpike roads of England* . . . 1824. iv, 196 p.

575. McAdam, John Loudon. *Observations on the Management of Trusts for the Care of Turnpike Roads, as regards the repair of the road, the expenditure of the revenue, and the appointment . . . of . . . officers*. 1825. Noted work. Illustrated by examples.

576. *General Rules for Repairing Roads*, published, by order of the Parliamentary Commissioners, for the improvement of the mail coach roads from London to Holyhead and from London to Liverpool, and for the use of surveyors on these roads. 1827. 11 p. 2 pl. Short technical notes on dimensions, drainage, fences, trees. Diagrams of tools, cross-sections of roads.

577. Parnell, Sir Henry Brooke, Baron Congleton, A

Treatise on Roads; wherein the principles on which roads should be made are explained and illustrated, by the plans, specifications, and contracts made use of by Thomas Telford, Esq., on the Holyhead Road. 1833. xii, 438 p. Important. Methods of construction and maintenance, explained by a recognized authority.

578. Gordon, Alexander, The Fitness of Turnpike Roads and Highways for the most expeditious, safe, convenient and economical internal communication. 1835. 32 p. Objects to railways as dangerous, costly; asserts that locomotives will not haul up hill, but slip.

579. Pratt, John Tidd, The Law relating to Highways, comprising the Statute 5 and 6 Wm. IV, c. 50 . . . with notes . . . forms, references, etc. 1835. 16th ed., 1911.

580. Gordon, Alexander, Observations addressed to those interested in either Rail-ways or Turnpike-roads; showing the comparative expedition, safety, convenience, and public and private economy of these two kinds of road for internal communication. 1837. 31 p. Almost a reprint of "Fitness . . ." although there are some changes.

581. Simms, Frederick Walter, A Treatise on the Principles and Practice of levelling . . . showing its application . . . in the construction of roads. 1837. Other editions, 1843, 1856, 1866, 1875. Very technical.

582. Hughes, Thomas, The Practice of Making and Repairing Roads . . . 1838. 108 p. A Practical, technical manual, following Telford's principles. Tables. Argues the necessity of improvement.

583. Whitworth, Sir Joseph, On the Advantages and Economy of Maintaining a High Degree of Cleanliness in Roads and Streets; with an account of the construction and operation of the street-sweeping machine. Manchester, 1847.

584. Law, Henry, Rudiments of the Art of Constructing and Repairing Common Roads . . . To which is prefixed, a gen-

eral survey of the principal Metropolitan roads, by S. Hughes. 1850. 2d ed., 1855. 158 p. A simple guide to methods of construction of roads and paved streets.

585. Glass, Henry Alexander, *Three Lectures on Roads and Road-makers*. 1864. 112 p.

586. Clarke, D. Kinnear, *The Construction of Roads and Streets*. 1877. xii, 345 p. 3d ed., 1887. Illus. A revised and condensed edition of H. Law's *The Art of Constructing Common Roads and Recent practice in the construction of roads and streets*. A historical sketch by Clarke precedes the rest. 20 p.

587. Bennett, Francis James, *Our Roads from Prehistoric Times to the Present Day*. 1905.

588. Webb, Sidney and Beatrice. *English Local Government: The Story of the King's Highway*. 1913. x, 279 p. An account of making and managing roads from earliest times to now, done with the usual Webb thoroughness. Includes notes and references at the close of each chapter.

589. Wilkinson, T. W., *The Highways and Byways of England. Their History and Romance*. 1913 (?). xi-xxiii, 270 p. Many illustrations. Clear, well-arranged, fairly short account of the history of roads. Romantic aspects distinctly subordinate, especially in the latter part.

§ 3. VEHICLES

Except for the peasant's rude cart, the pack-horse and the saddle-horse carried the goods and the people of England until the middle of the sixteenth century; when great springless wagons were introduced for freight and for such of the public as cared to ride and could not afford the fashionable new private carriages. Even these were really hardly less uncomfortable, for they were massive vehicles, swung on leather straps, and drawn slowly by the heavy coach-horses.

When stage-coaches were introduced nearly a century later, many of the old private coaches were sold to be hired out, and supplanted by the lighter, more graceful carriages which were becoming popular. The lumbering stage-coach remained springless until 1750, and was in many other respects a poor means of transportation. An impression that if the center of gravity was high, speed would be increased, caused weight to be piled on top until the vehicles were frequently overturned. Only the main lines of travel were supplied with coaches, and at best they ran infrequently.

The greatest improvement came with the mail-coach, which was both safer and speedier than its predecessor. The lighter construction, better horses, and improved roads resulted in such satisfactory service that for a time the mail-coach continued to vie with the railway for passengers.

Meantime the long trains of carts had given place in many districts to canals for carrying freight. Carriages had been greatly improved by Obadiah Elliott's invention of the elliptic spring in 1804, and coach building had become an art. Public conveyances were in use in the principal cities, and the omnibus was borrowed from France in 1829 to take its characteristic place in London life.

The works quoted below in many instances were written by coachmakers and are therefore technical, but most of them include valuable illustrations. The act of 1747 levying a tax on coaches provides a source for accurate returns of their number. The literature of the period, especially books of travel, give vivid pictures of the discomforts of vehicles.

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590. Patents for Inventions. Abridgments of Specifications relating to Carriages and other Vehicles for Common Roads. A. D. 1625-1866. 1880. xxvi, 1262 p. By H. Reader Lack.

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591. Bourn, Daniel, A Treatise upon Wheel-carriages; showing their present defects; with a plan and description of a newly constructed wagon . . . 1763. The wagon had very wide tires and small front wheels, was, of course, unsuccessful when tried, but represented ideas popular at the time.

592. Jacob, Joseph, Observations on the Structure and Draught of Wheel-Carriages. 1773.

593. Felton, William, A Treatise on Carriages, . . . together with their proper harness. In which the fair prices of every article are . . . stated. 1794-6. 2 v. Technical.

594. Deacon, William, Remarks on Conical and Cylindrical Wheels, Public Roads, Wheel Carriages, &c. In which the present systems are reprobated, as being destructive to horses and turnpike roads, of serious consequences to individuals, and a great loss to the public . . . 1808. xii, 139 p. Favors cylindrical wheels, flat roads, carriage of passengers inside of coaches, longer coach bodies, wider roads.

595. Edgeworth, Richard Lovell, An Essay on the Construction of Roads and Carriages. 1813. ix, 202, 194 p. 2d ed., 1817, iv, 157 p. Theory of road construction, wheels, springs.

596. Gordon, Alexander, *An Historical and Practical Treatise upon Elemental Locomotion by Means of Steam Carriages on Common Roads*. London and Edinburgh, 1832. vii, 192 p. 11 plates, 3 folding plates. 2d ed., 1833, xiv, 326 p.

597. Gurney, Sir Goldsworthy, *Observations on Steam Carriages on Turnpike Roads*. With returns of the daily practical results of working, the cause of the stoppage of the carriage, at Gloucester; and the consequent official report of the House of Commons . . . 1832. Most prominent of the early experiments with steam carriages. Patent issued in 1827. Several ran but sometimes exploded.

598. Adams, William Bridges, *English Pleasure Carriages; their origin, history, varieties, materials, construction, defects, improvements, and capabilities; with an analysis of the construction of common roads and railroads, and the public vehicles used on them; together with descriptions of new inventions*. 1837. xix, 315 p. Illus. Principles of construction rather than details.

599. Hancock, Walter, *Narrative of Twelve Years Experiments, 1824-1836, demonstrative of the practicability and advantage of employing steam-carriages on common roads* . . . 1838. 104 p. Illus. Describes machines with which experiments were made. Insufficient fuel supply the chief difficulty, but a mile was made in three and a half minutes.

600. Young, Charles Frederick T., *The Economy of Steam Power on Common Roads, in relation to agriculturists, railway companies, mine and coal owners, quarry proprietors, contractors, etc., with its history and practice in Great Britain* . . . 1860. xii, 423 p. Bibliography.

601. Malet, Harold Esdaile, *Annals of the Road, or, Notes on Mail and Stage Coaching in Great Britain* . . . 1876. iv, 403 p. Colored illustrations. Sporting point of view, but the author evidently knows his subject.

602. Thrupp, George Athelstane, *The History of Coaches*.

1877. xii, 152 p. 18 plates. Technical history of coach building. Basis for most of the later works.

603. Stratton, Ezra M., *The World on Wheels; or, Carriages, with their historical associations from the earliest to the present time* . . . New York, 1878. 489 p. Illustrated.

604. Harris, Stanley, *Old Coaching Days*. 1882.

605. Tristram, William Outram, *Coaching Days and Coaching Ways*. 1888. 367 p. Editions in 1893, 1894. Illustrated. Popular.

606. Fletcher, William, *History of Steam Locomotion on Common Roads*. 1891. xii, 288 p. The experiments of each inventor traced. Considers three periods, that of mere speculation, that of experiment, 1770-1831, that of successful application. Attributes the failures of the early men of the last period to a desire for too great speed, which resulted in breakdowns.

607. Moore, Henry Charles, *Omnibuses and Cabs. Their Origin and History*. 1902. xiv, 282 p. 31 Illus.. Interesting chapter on early steam omnibuses, which were stopped by heavy toll.

608. Gilbey, Sir Walter, *Early Carriages and Roads*. 1903. vii, 122 p. Illus. Popular, but valuable.

609. Harper, Charles George, *Stage Coach and Mail in Days of Yore*. 1903. 2 v.

610. Straus, Ralph, *Carriages and Coaches: their history and their evolution*. 1912. 309 p. 30 Plates. "Non-technical description of carriages in general, based on chronological arrangement." Best on private carriages. Quotations from sources: plays, diaries, advertisements, etc.

§ 4. RIVERS AND CANALS

The inaccessibility of inland towns due to the difficulties of travel by road was somewhat diminished where the towns were situated, as many of them were, upon a navigable river. Spasmodic attempts were made as early as the fifteenth and sixteenth centuries at river improvement, but no notable efforts took place until toward the close of the seventeenth and during the early part of the eighteenth, when a number of acts were passed providing for the improvement of most of the larger English rivers. Some of the more important industries, however, were not located near navigable rivers, the streams were frequently winding, and traffic was often interrupted by floods or droughts. Deepening and straightening the course was resorted to, but chiefly at the approach to the ports near the mouths of the rivers.

The greatest advance made in inland navigation came through the construction of canals. The Aire and Calder Navigation, the first modern canal with locks, was opened in the seventeenth century, but the stimulus to canal building on an extensive scale was the Duke of Bridgewater's canal, opened in 1761, to carry coal from Worsley to Manchester. A large proportion of the freight transportation thereafter took place on the new artificial waterways that came to intersect nearly the entire country. The canal era continues until the competition of the railways made the canals no longer profitable.

Consult biographies of Brindley, Middleton, Smeaton.

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611. Patents for Inventions. Abridgment of Specifications relating to Harbours, Docks, Canals, etc., A. D. 1617-1866. 1876. ix, 284 p. One of Bennet Woodcroft's series of abridgments of patent specifications, printed by order of the Commissioners of Patents.

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612. The Report of John Grundy, L. Edwards, and John Smeaton, Engineers, concerning the . . . ruinous . . . condition of the river Witham, and the navigation thereof from the the city of Lincoln . . . to its outfall into the sea . . . together with proposals . . . for restoring . . . the said . . . navigation . . . Lincoln, (1761.)

613. A View of the Advantages of Inland Navigations, with a Plan of a Navigable Canal intended for a Communication between the Ports of Liverpool and Hull. 1765.

614. Brindley, James, The History of Inland Navigations, particularly those of the Duke of Bridgwater. . . . 1766, 1779. The engineer of the famous canal of the Duke of Bridgwater tells the story of the work.

615. Whitworth, Richard, *Sir*, The Advantages of Inland Navigation, or some observations . . . to show that an inland navigation may be easily effected between Bristol, Liverpool and Hull . . . 1766.

616. Seasonable Considerations on a Navigable Canal intended to be cut from the Trent to the Mersey. 1766.

617. Badeslade, Thomas, History of the Ancient and Present State of the Navigation of the Port of King's Lyn and of Cambridge and the rest of the trading Towns in those Parts. 1766.

618. Gray, J., Reflections on Inland Navigations, and a new method proposed for executing the intended navigation betwixt the Forth and the Clyde . . . 1768.

619. Smeaton, John, The Report of John Smeaton concerning the Practicability and Expence of Joining the Rivers Forth and Clyde by a Navigable Canal. . . . Edinburgh, 1768.

620. Smeaton, John, A Review of several matters relative to the Forth and Clyde navigation, as now settled by Act of

Parliament, with some observations on the reports of Mess. Brindley, Yeoman, and Goldburne. Edinburgh, 1768.

621. Phillips, John, A General History of Inland Navigation, foreign and domestic: containing a complete account of the canals already executed in England, with considerations on those projected . . . , 1792, new ed., 1793, others, 1799, 1803. 1793 ed., xx, 371, 33 p. Illustrated with maps and plans. Important. Describes canals with reference to the country through which they pass, products to be carried, etc., stressing advantages. Gives long quotations from several contemporary pamphlets. ✓

622. Cary, John, Inland Navigation: or, Select Plans of the Several Navigable Canals throughout Great Britain . . . 1795.

623. Fulton, Robert, A Treatise on the Improvement of Canal Navigation; exhibiting the numerous advantages to be derived from small canals . . . with a description of the machinery for facilitating conveyance by water through the most mountainous countries, independent of Locks and Aqueducts . . . 1796. xvi, 143 p. 17 plates. Treats of origin, construction, boats, navigation, crossing of rivers, cast-iron rails, iron bridges, and a scheme for avoiding a lock system to save water. ✓

624. Chapman, William, Observations on the various Systems of Canal Navigation . . . in which Mr. Fulton's plan of wheel boats, and the utility of subterraneous and of small canals are particularly investigated, including an account of the canals and inclined planes of China. With four plates. 1797. ✓

625. Remarks on Inland Canals, the Small System of Interior Navigation, various uses of the inclined plane . . . 1798.

626. Tatham, William, The Political Economy of Inland Navigation, Irrigation and Drainage . . . 1799.

627. Chapman, William, Facts and Remarks relative to the Witham and the Welland, . . . on the means of improving the channel of the Witham and the Port of Boston, and on the impolicy of changing the course of the Welland . . . Boston, 1800.

628. Allnutt, Zachariah, Considerations on the Best Mode of improving the . . . navigation of the Thames from Richmond to Staines . . . Henley, 1805. Author, an engineer.

629. Mr. Telford's Report on the intended Cumberland Canal; and Mr. Chapman's Further Report on Observations thereon. Carlisle, 1808. 16 p.

630. Report of Mr. Telford respecting the Stamford Junction Navigation . . . Stamford, (1810.) 27 p.

631. Allnutt, Zachariah, Useful and Correct Accounts of the Navigation of the Rivers and Canals west of London. Henley, 2d ed., 1810. Manual of information, giving rates, schedules, distances, etc.

632. Hassell, J., Tour of the Grand Junction Canal, illustrated with a series of engravings, with an historical and topographical description of those parts . . . through which the canal passes. 1819. 147 p. Colored plates.

633. Fairbairn, William, Remarks on Canal Navigation, illustrative of the advantages of the use of steam, as a moving power on canals . . . 1831. 93 p. Plans. Gives results of experiments with the use of steam, accompanied by tables of data, plans of boats, calculations as to cost.

634. Macneill, John, Canal Navigation. On the resistance of water to the passage of boats upon canals, and other bodies of water, being the results of experiments . . . 1833. 55 p. Plates. Suggests improvements in the design of boats, the adoption of which, he thinks, might save the canal companies in competition with railroads.

635. Priestley, Joseph, Historical Account of the Navigable Rivers, Canals and Railways, throughout Great Britain. 1831. xiv, 702, viii p.

636. Stevenson, David, Remarks on the Improvement of Tidal Rivers, illustrated by reference to works executed on the Tay, Ribble, Forth, Lune and other rivers. 1849.

637. Lloyd, John, Jr., Papers relating to the History and Navigation of the Rivers Wye and Lugg. 1873.

638. Humpherus, Henry, History of the Origin and Progress of the Company of Watermen and Lightermen of the River Thames, with numerous Historical Notes. (1514-1859.) 1887.

639. Jeans, James S., Waterways and Water Transport in Different Countries: with a description of the Panama, Suez, Manchester, Nicaraguan, and other canals. 1890. xx, xii, 507 p. Comparatively small space devoted to the history of English canals, but it is treated incidentally. Statistical appendix and chronology of canals.

640. Industrial Rivers of the United Kingdom; namely: The Thames, Mersey, Tyne, Tawe, Clyde, Wear, Taff, Avon . . . by various well-known experts. 1891. vi, 306 p. Illustrated.

641. de Salis, Henry Rodolph, A Chronology of Inland Navigation in Great Britain. 1897.

642. Thompson, H. Gordon, The Canal System of England: its growth and present condition, with particular reference to the cheap carriage of goods. [1903] 70 p. A brief account of the building of canals after 1750, the resultant low rates for freight, the fate of the canals at the hands of the railroad companies.

643. Forbes, Urquhart Atwell, and W. H. R. Ashford, Our Waterways: a History of Inland Navigation considered as a Branch of Water Conservancy. 1906. xv, 336 p. Bibliography. Standard work. Highly favorable to canals.

§ 5. RAILWAYS

The use of rails as a means of facilitating transportation appears to have developed in the mining regions of Great Britain, where the load of ore which a horse could haul was greatly increased by having the wagon wheels run on logs instead of the rough road. Toward the close of the eighteenth century iron rails were substituted. These early rails were usually flanged, instead of the wheels.

The collieries were likewise the scene of the first locomotives. There are numerous claimants to the honor of applying the steam-engine first to traction purposes, notably, Trevithick, Blenkinsop, Hedley and Symington. The early locomotives were so heavy that they often broke the rails, steam was apt to give out at a critical moment, and none were capable of much greater speed than the horses. Several changes in mechanism were required before they could be successful. The first of these was giving up the idea that the driving wheels would not grip the rails so that a cog-rail and wheel must be employed. Then, in order to secure a continuous and adequate supply of steam, the multi-tubular boiler and forced draught were devised, and the success of steam locomotion was assured.

The best known of the engineers first concerned with the railways was George Stephenson. He had been in charge of a stationary engine at the Killingworth collieries, where he built a locomotive in 1814, for use in hauling coal. At his suggestion the Stockton and Darlington Railroad determined to employ steam instead of horse-power in the operation of their road. Its success, in 1825, led to its adoption on the Liverpool and Manchester Railroad, opened in 1830, and on other lines thereafter.

The large financial returns resulted in a great increase in investments in railways. The canal companies fell into disfavor

as the turnpike companies had done, and a mania for speculation in the new stocks spread over the country. Acts authorizing construction were secured from Parliament by the hundred, and the public bought with avidity paper which represented simply the wild schemes of unscrupulous promoters. The boom reached its height in 1846 and 1847 and ceased only with the panic which followed the disillusionment of the public.

The development of railways from that date was more nearly normal. A few main lines, serving districts where the amount of traffic warranted their existence, succeeded, the others usually did not pass beyond the stage of surveying.

The history of railways is told in the many volumes on special roads, most of them popular in character. The source material is varied: the biographies of inventors and others connected with the railways, reports of the engineers, the old timetables and guides for the use of travellers, the acts of Parliament authorizing the construction of railroads, debates in Parliament, the reports of Parliamentary commissions, and of the short-lived Railway Department of the Board of Trade (1844-5). Many pamphlets were issued bearing on the controversy over the value of railways, state regulation, possible state ownership, and such topics as the question of broad or narrow gauge. At the time of the first active interest in railways, several newspapers devoted to railway affairs were started, some of which managed to survive the crash.

Refer to *Inventions*.

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645. Catalogue of the Hopkins Railway Library. Palo Alto, California, 1895. Publications of the Library, Leland Stanford Junior University, I. x, 231 p. Includes a number of books relating to this period.

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647. Patents for Inventions. Abridgments of Specifications relating to Railways. A. D. 1803-1866. 2d ed., 1873. xxxiii, 673 p.

648. Reports of the Railway Department of the Board of Trade. 1845.

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649. Railway Magazine, 1835-1904. Name soon changed to Herapath's Railway Magazine.

650. Railway Times, 1838 to date, continued under other titles.

651. Railway Chronicle, 1844-1849.

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653. Bradshaw's Railway Gazette, 1845-6, continued as the Railway Gazette to 1872.

654. Railway Register and Record of Public Enterprise for Railways, Mines, Patents, Inventions; edited by Hyde Clarke. 1845. 2v.

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655. Gray, Thomas, Observations on a General Iron Railway: . . . showing its great superiority, . . . over all the present methods of conveyance by turnpike roads and canals. 1820. 4th ed., 1823, 131 p. 5th ed., 1825, 233 p. Author, one of the earliest and most strenuous advocates of railways. Gives a plan of a railway to reach all important places in England, branch roads to be connected with main lines by turn-tables, horses to be used or locomotives with cogs to grip a cog-rail. Statistics.

656. A Further Report, of the intended Rail or Tram Road; from Stockton, by Darlington, to the Collieries, with a Branch to Yarum. Darlington, 1821. 22 p. Introduction, on advantages, assumes horse-drawn wagons. Estimates of expected revenue.

657. Palmer, Henry Robinson, Description of a Railway on a New Principle . . . 1823. viii, 60 p. Advocates overhead monorail. "The motion may be impelled by steam, either as a locomotive or stationary power . . ." p. 43.

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659. Sandars, Joseph, A Letter on the Subject of the Projected Railroad, between Liverpool & Manchester, pointing out the necessity for its adoption and the manifest advantages it offers to the public, with an exposure of the exorbitant & unjust charges of the Water Carriers. Liverpool, 1825. Also reviewed in the *Quarterly Review*, 1825. Author called the "father and founder of the Liverpool and Manchester railway." Declares canals inadequate and expensive.

660. Wood, Nicholas, Practical Treatise on Railroads, and Interior Communication in General, containing numerous experiments on the powers of the improved locomotive engines: and tables of the comparative cost of conveyance on canals, railways, and turnpike roads. 1825. 314 p. 2d ed., 1832. 3d ed., 1838. xxvii, 760 p. Illus. Third edition includes history to date of railroads. Author, an engineer and friend of George Stephenson, writes with authority. The work is technical but of general importance, as it is much used as a source by later historians. It includes tables, mathematical calculations, plans and descriptive material on rails, construction, carriages, motive-power, friction.

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tive Engines, addressed to the Chairman and Committee of the Liverpool and Manchester projected Railroad. Liverpool, 1825. Reviewed in the *Quarterly Review*, 1825.

662. Tredgold, Thomas, A Practical Treatise on Railroads and Carriages, showing the principles of estimating their strength, proportions, expense, and annual produce, and the conditions which render them effective, economical, and durable; with the theory, effect, and expense of steam carriages, stationary engines, and gas machines. 1825. 2d ed., 1835. xi, 184 p. Plates and tables. Objects to high pressure engines because of danger. Compares conditions under which the different means of transportation are most desirable.

663. Birkenshaw, John, Remarks on the Comparative Merits of Cast Metal and Malleable Iron Railways; and an Account of the Stockton and Darlington Railway, . . . Newcastle, 1827. iv, 22, 39 p. On the invention of the broad topped malleable iron rail with welded joints.

664. Booth, Henry, An Account of the Liverpool and Manchester Railway . . . Liverpool, 1830. The standard source; author, the treasurer of the company. Reprinted, with "Report to the Directors of the Liverpool and Manchester Railway, on the Comparative Merits of Locomotive and Fixed Engines . . ." by James Walker, who preferred fixed engines, and the report of Robert Stephenson and Joseph Locke in favor of locomotives. Philadelphia, 1831. 130 p.

665. Walker, James Scott, An Accurate Description of the Liverpool and Manchester Rail-Way, the Tunnel, the Bridges, and other Works throughout the Line; . . . Liverpool, [1830]. Dramatic descriptions of the line, coaches. . . . Third edition, 1831, includes an account of the opening of the railway and a brief memoir of William Huskisson, who was killed then.

666. The Advantages of Railways with Locomotive Engines, especially The London and Greenwich Railway or Viaduct, . . . to the Public, the Proprietors of Property along and near

the Line of Road and the Shareholders, explained; by a Proprietor. 1833, 2d ed., 16 p. Prospectus, with a map.

667. Badnall, Richard, A Treatise on Railway Improvements. 1833. 142 p. Proposed "undulating railway."

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673. Storey, Thomas, Report on the Great North of England Railway, connecting Leeds and York, with Newcastle-upon-Tyne. Darlington, 1836. 25 p. Plan shows sections, tells line proposed, grade, etc., estimates of cost.

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675. Gordon, Alexander, *Observations addressed to those interested in either Rail-ways or Turnpike-Roads, shewing the comparative expedition, safety, convenience, and public and private economy of these two kinds of road for internal communication.* 1837. 31 p.

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679. Bradshaw's *Railway Manual, Shareholder's Guide and official Directory.* Manchester, 1839. Title varies. First London edition, 1843. Pendleton, (no. 738) vol. II, p. 141, has a facsimile of the 1839 edition. See "*The Story of Bradshaw's Guide,*" by Percy H. Fitzgerald, 1890. 76 p. The earliest of the famous "Bradshaw's" appeared as a time-table, Oct. 19, 1839. *Bradshaw's Railway Companion* was issued at irregular intervals from 1840 to 1848, to tell times of departure, fares, and give other information.

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680. Day, James, *A Practical Treatise on the Construction and Formation of Railways*, showing the practical application, and expense of excavating, haulage, embanking, and permanent waylaying. 1839. xii, 210 p. 12 figs. 2d ed., 1839. 3d ed., 1848. xii, 216 p. Technically devoted chiefly to road-bed.

681. Gilbert, James, *The Railways of England: containing an account of their origin, progress and present state* . . . 1839. 126 p. Map. Historical sketch of English commerce, then, of railways.

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684. Roscoe, Thomas, *The Book of the Grand Junction Railway, being a history and description of the line from Birmingham to Liverpool and Manchester* . . . 1839. 154 p. Describes, with many superlatives, the route, in detail, from station to station, noting estates and other points of interest.

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687. Shuttleworth, J. G., *The Hydraulic Railway: being a plain statement of the advantages . . . in establishing hydraulic propulsion on Railways.* 1842. Patentee's description of his invention. A sample of the numerous impracticable schemes proposed.

688. *Railway Reform; its expediency and practicability considered.* With . . . Appendix containing a description of all the Railways in Great Britain and Ireland, fluctuations in the prices of shares, statistical and parliamentary returns, . . . 1843. Other editions.

689. Harding, Wyndham, *The Gauge Question. Evils of a Diversity of Gauge, and a Remedy.* 1845. 62 p. Beginning of popular agitation on the subject.

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concave tires and convex rails, curved axles would make high speed safer.

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698. Ritchie, Robert, Railways; their Rise, Progress, and Construction, with remarks on railway accidents, and proposals for their prevention. 1846. viii, 444 p.

699. Sidney, Samuel, Gauge Evidence. The History and Prospects of the Railway System, illustrated by the Evidence given before the Gauge Commission. 1846. xxxix, 400 p. Brief history of the discussion over broad and narrow gauge, followed by evidence, at length, under the name of every prominent engineer.

700. Curr, John, Railway Locomotion, and Steam Navigation; their Principles and Practice. 1847. 181 p.

701. Dempsey, George Drysdale, The Practical Railway Engineer. Examples of the mechanical and engineering operations and structures combined in the making of a railway. 1847. 157 p. 50 plates. 4th ed., 1855. vi, 428, 44 p. 75 figs., 71 plates.

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703. Shaen, Samuel, A Review of Railways and Railway Legislation at Home and Abroad. 1847. 103 p. Sources, mainly Parliamentary papers. Compact. Makes a number of suggestions as to regulations necessary to protect the public, some would seem quite obvious.

704. Sidney, Samuel, Speed on Railways considered in a Commercial Point of View. 1847. 22 p. Objects to express trains as unfair to the general public who are obliged to cover the

extra cost of speed. Interesting statistics as to speed, cost, number of trains.

705. Ward, James, *Railways for the many, and not for the few; or, How to make them profitable to all.* 1846. 1847, 2d ed. enlarged. xii, 57 p. Proposes that future railways issue £5 shares to enable small investors to buy, that they use economy in construction and management, and lessen fares.

706. Haxby, J. B., *Signals upon Railway Trains*; remarks upon the additional protection to passengers, and saving to railway companies which might be effected in the prevention of accidents by the adoption of a more efficient mode of signalling upon railway trains. 1848. 21 p. Amusing pamphlet, suggesting a bell and cord for signalling the engineer from the rear of the train.

707. Parry's *Railway Companion from Chester to Holyhead*; containing a narrative of the early and parliamentary history of the project; with a descriptive and historical account of the adjacent towns, and other objects of interest that present themselves on this line. 1848. 154 p. 2d ed., 1849.

708. *Personal Recollections of English Engineers, and of the Introduction of the Railway System into the United Kingdom.* By a Civil Engineer. 1848. xvi, 432 p. Reminiscences in literary style, lively description, incident, social aspects of railroads, e. g. the attitude of owners of land toward surveyors.

709. Salt, Samuel, *Facts and Figures, Principally relating to Railways and Commerce.* Manchester, 1848. 152 p. An unorganized collection of clippings, mostly statistical. Index.

710. Morrison, James, *The Influence of English Railway Legislation of Trade and Industry.* 1848. 187 p. Author, a member of Parliament, a pioneer in the struggle for state regulation of railways. Objects to perpetual franchises, wild speculation. Includes a history of railway legislation and a review of railway finance.

711. Sidney, Samuel, *Railways and Agriculture in North*

Lincolnshire. Rough notes of a ride over the track of the Manchester, Sheffield, Lincolnshire, and other railways. 1848. xv, 103 p. A small volume giving careful descriptions of farms, state of cultivation, and towns along the way. Wants more co-operation between the railroads and farmers.

712. Cotterill, Charles Forster, The Past, Present, and Future Position of the London and Northwestern, and Great Western Railway Companies. . . . 1849. 56 p. Prefers government monopoly to unrestrained competition.

713. Gordon, Lewis D. B., Railway Economy. An exposition of the advantages of locomotion by locomotive carriages, instead of the present expensive system of steam tugs. Edinburgh, 1849. 67 p. Wants single self-driven cars instead of locomotives.

714. Head, Sir Francis Bond, Stokers and Pokers; or, The London and North-Western Railway, the Electric Telegraph, and the Railway Clearing-house. 1849, 208 p. 1855, (224 p.), 1861. Illus.

715. Martin, Robert Montgomery, Railways—Past, Present, and Prospective. 1849. 2d ed., 1849, 82 p. Story of the speculation of 1845, suggests reforms in railway management to prevent repetition.

716. Scrivenor, Harry, The Railways of the United Kingdom, statistically considered . . . 1849. xii, 733, 106 p. Reference book for investors. Author, Secretary of Liverpool Stock Exchange. Supplement, 1851.

717. Clarke, R. Yorke, Railway Appliances in the Nineteenth Century. 1850, 3d ed., 84 p.

718. Lardner, Dionysius, Railway Economy; a treatise on the new art of transport, its management, prospects, and relations, commercial, financial, and social, with an exposition of the practical results of the railways in operation in the United Kingdom, on the Continent, and in America. 1850. xxiii, 528 p. Valuable work, at once a history and a source.

719. Salt, Samuel, *Railway and Commercial Information*. 1850. xii, 240 p. Similar to No. 709.

720. Francis, John, *A History of the English Railway; its social relations and revelations. 1820-1845. 1851. 2 v.* Long standard, but somewhat diffuse and with an uncritical and personal attitude natural at the time. Particularly useful for social results.

721. Williams, Frederick Smeeton, *Our Iron Roads: their History, Construction, and Social Influences, 1852, xi, 390 p.* Illus. 7th ed., 1888. Graphic story of the establishment and general history of railroads, methods of construction, etc., designed "to quicken . . . a deeper interest in the social and industrial progress of the people."

722. Audiganne, Armand, *Les chemins de fer aujourd'hui et dans cent ans chez tous les peuples; économie financière et industrielle, politique et morale des voies ferrées. Paris, 1858-62. 2 v.* One chapter on England in each volume.

723. Adams, William Bridges, *Roads and Rails, and their Consequences, Physical and Moral. 1862. 372 p.*

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725. Cohn, Gustav, *Untersuchungen über die Englische Eisenbahnpolitik. Leipzig, 1874-5. 2 v., v. 3, 1883. Vol. 1 centers about the problem of competition. Vol. 2 concerns itself mainly with the organization of railroad companies. A historical study in economics. Important.*

726. Tweddell, George Markham, *The History of the Stockton and Darlington Railway, and its various branches . . . Stokesley, 1869-70.*

727. Jeans, James Scott, *Jubilee Memorial of the Railway*

System. A history of the Stockton and Darlington Railway and a record of its results. 1875. xviii, 315 p. Illus. Author, a prominent railway man. After a detailed account of the road, brief biographies of nine of the organizers. Appendix gives quotations from sources.

728. Williams, Frederick Smeeton, *The Midland Railway: Its Rise and Progress*. A narrative of modern enterprise. 1876, and later editions. xii, 700 p. Part 1. History. Part 2. Description. Part 3. Administration. Entertaining. Often quotes conversations, anecdotes.

729. Adams, Charles Francis, Jr., *Railroads: Their Origin and Problems*. New York, 1878. 216 p. Eds., 1880, 1887, 1893. History subordinate to problems.

730. Parsloe, Joseph, *Our Railways*. Sketches, historical and descriptive, with practical information as to fares and rates, etc., and a chapter on railway reform. 1878, xii, 294 p. Much varied information for the general public.

731. Archer, Mark, William Hedley, the Inventor of Railway Locomotion on the Present Principle. Newcastle-upon-Tyne, 1882. 2d ed. 3d ed., 1885. xvi, 80 p. Illus. Presents Hedley's claims to the invention of the steam blast, the return flue boiler and smooth wheel traction. Short biography.

732. Hadley, Arthur Twining, *Railroad Transportation. Its History and its Laws*. New York, 1885. Other editions 1886, 1895, 1899, 1903. v, 269 p. Standard economic and legal study with little on the history of English railroads.

733. Acworth, William Mitchell, *The Railways of England*. . . . 1889, xvi, 427 p. 5th ed., 1900. Illus. Fairly full, popular account of several important lines. Some history interspersed, but chiefly author's observations and anecdotes, eulogy of English roads. Acworth is the most prominent authority on railways in England.

734. Findlay, Sir George, *The Working and Management*

of an English Railway . . . 1891, 4th ed. vi, 354 p. 1894, 5th ed. 412 p. Author, General Manager of the London and North Western. Little history, but a history of track.

735. Stretton, Clement Edwin, *The Locomotive Engine and its Development*. A popular treatise on the gradual improvements made in railway engines between 1803 and 1892. . . . 1892. x, 154 p. 6th ed., 1903.

736. Pangborn, Joseph Gladding, *The World's Railway, Historical, Descriptive, Illustrative*. New York, 1894 (really appeared 1896). 164, 8 p. Handsome volume, with illustrations of locomotives on every page.

737. Pendleton, John, *Our Railways, their Origin, Development, Incident and Romance*. 1894. 2 v. Ed. 1896. Illus. Emphasizes the picturesque and the humorous, incident.

738. Grinling, Charles Herbert, *The History of the Great Northern Railway, 1845-1895*. 1898. vi, 429 p. New ed. 1903. Detailed and accurate, although biassed by the author's fondness for the Great Northern.

739. Stretton, Clement Edwin, *The History of the Midland Railway*. 1901. xii, 358 p. 106 illustrations and diagrams. Good, full account, dealing with all phases of the company's history.

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741. Williams, Archibald, *Romance of Modern Locomotion*. . . . 1904. 367 p., ed., 1912. Popular, many illustrations.

742. Howells, Clarence S., *Transport Facilities in the Mining and Industrial Districts of South Wales and Monmouthshire; their History and Future Development*. 1911. 56 p. M.A. thesis, summary of the history of canals, railroads, seaports.

743. Heavisides, M., *The History of the First Public Railway, (Stockton & Darlington) the Opening Day and What Fol-*

lowed. Stockton-on-Tees, 1912. 95 p. Good little popular account.

744. Lawson, W. R., British Railways. A Financial and Commercial Survey. 1913. xxxii, 320 p. Book Second, historical, much condensed, general observations.

745. Lewin, Henry Grote, The British Railway System. Outlines of its Early Development to the Year 1844. 1914. vii, 67 p. Useful little summary, annalistic.

746. Protheroe, Ernest, The Railways of the World. [1914.] xx, 752 p. 16 colored plates and 419 illus. in the text. Desires to arouse general interest in railways, by describing engines, explaining machinery, etc.

747. Steel, Wilfred L., The History of the London & North Western Railway. 1914. xii, 502 p. Illus. Early history given rapidly. Author enthusiastic about the line.

748. Tomlinson, William Weaver, The North Eastern Railway; its Rise, and Development. Newcastle-upon-Tyne. [1914.] xvi, 820 p. Illus. Elaborate work with numerous foot-note references to authorities. Full account of the Stockton and Darlington.

749. Cleveland-Stevens, Edward, English Railways. Their Development and their Relation to the State. 1915. xvi, 332 p. Detailed historical account to 1900. Elaborate foot-note references. Utilizes material in the Acworth Transport Collection at the London School of Economics and Political Science of London University.

VITA

The author was graduated from Vassar College with honors in 1912. As special fellow from Vassar she studied History and Economics at Columbia University, taking the degree of Master of Arts in 1913. During 1913-14, she was Curtis Graduate Scholar at Columbia, where she continued her studies the following year. She was appointed European Fellow of the Association of Collegiate Alumnae for 1915-1916, but postponed the use of the fellowship because of the war. Meantime she has been teaching in the Julia Richman High School in New York City.

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